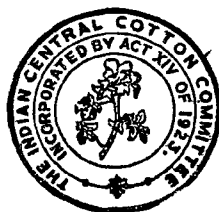


SUMMARY REPORT ON THE MARKETING OF COTTON IN INDIA



1961

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PREFACE

A detailed survey on all aspects of marketing of cotton in India was conducted by the Indian Central Cotton Committee in 1958-59, with a view to introducing improvements, where necessary, in the system of Cotton Marketing adopted in the country. The survey was carried out in fifty representative markets in the major cotton growing States, under the technical guidance of the Directorate of Marketing and Inspection, Government of India, Ministry of Food and Agriculture, Nagpur. A comprehensive report, based on the findings of the survey, has been published by the Committee recently under the title "Report on the Marketing of Cotton in India", which covers nearly 500 pages spread over 19 chapters. A summary of each chapter of the Report is presented in this small brochure for the benefit of the general reader interested in cotton marketing who may not have the time to go through the full Report. As stated in the Preface to the main Report, the recommendations indicate, in a general way, the measures necessary for improving the marketing of cotton. The Indian Central Cotton Committee should not be regarded as assuming responsibility for the views expressed in the Report.

The summary has been prepared by Shri R. T. Mirchandani, Deputy Agricultural Marketing Adviser to the Government of India, whose assistance is gratefully acknowledged.

Bombay
November 1961

B. L. SETHI
Secretary
Indian Central Cotton Committee

CHAPTER I

HISTORY OF COTTON AND COTTON INDUSTRY

The origin of cotton plant and the use of cotton fibre are shrouded in obscurity. The references made in the *Vedas* and many other historical references, however, indicate that the earliest civilisation to spin and weave cotton was that of India and for over 3,000 years (1500 B.C. to 1700 A.D.), India was recognised as 'the Cradle of the Cotton Industry'. Since time immemorial, India has been the producer of cotton and of the finest and most beautiful cotton fabrics.

Among the cultivated plants which meet the material needs of man, cotton occupies an outstanding position as, next to food, clothing is the prime need of life. Though in the recent past, synthetic fibres have gained immense popularity and have challenged the supremacy of cotton, it still forms more than 65 per cent of the raw fibre used by the world's textile industry. In India, for centuries, cotton is entwined with its culture and economy. In a sense, the history of cotton might be considered the history of India. Many of the important changes in India's economy owe their birth to raw cotton problems. In the agricultural economy of the country, cotton still continues to enjoy a vital position. Amongst the important cash crops, viz., cotton, jute, groundnut and other oilseeds grown in the country, cotton stands the highest, occupying a little over one-third of the total area covered by these crops. The total value of raw cotton produced in India amounts to over Rs. 200 crores annually. It provides the essential raw material for the biggest industry of the country, viz., the cotton textile industry. Both the handlooms and the mills produce cloth of the value of Rs. 600 crores annually and meet about 93 per cent of the cloth requirements of the country's population. The cotton textile industry forms a substantial source of revenue to the exchequer, and about Rs. 115 crores are collected annually from levy of taxes and duties. From exports of raw cotton and cotton manufactures, the country earns valuable foreign exchange to the tune of Rs. 80 crores every year.

Even the cotton seed—a by-product of raw cotton—provide a highly nutritious and concentrated feed for milch cattle. Of late, increasing quantities of cotton seed are being used for extraction of oil, for industrial and edible purposes, and the cotton seed oil industry is fast developing.

While the production of cotton sustains a large section of our farm population, the handloom and the mill sectors of the cotton textile industry are important sources of employment to working population, employing directly

over 25 lakh and eight lakh workers, respectively. Besides these, the cotton industry provides a source of income to a vast number of persons engaged in the trade of raw cotton, yarn and cloth, and in the manufacture and sale of textile auxiliaries.

DEVELOPMENT OF COTTON INDUSTRY

The history of trade in cotton and cotton goods between India and foreign countries is an ancient one and has been influenced by many factors from early times. It was the fame of the Indian *calicos* and *mulls* that attracted the western nations to India. The East India Company entered the Indian market with the purpose of securing cotton cloth for Great Britain and Europe, and Bombay gained commercial importance as an export centre for textiles, as early as 1665.

It was only after the Industrial Revolution that the East India Company reversed its policy and began exporting raw cotton from India for the use by new factories in England and, gradually, from the exporter of cotton cloth, the country became the exporter of raw cotton. This constituted a great set-back to the cotton economy of the country. The redeeming feature, however, was that the change-over gave a great fillip to the cotton production in India. Further, the huge profits made by the Indian exporters of raw cotton were subsequently invested in setting up cotton mills in the country and a way was paved for India to become an important manufacturer of cotton textiles once again. During the Second World War, the industry developed considerably. In 1959, the number of textile mills was 479, having nearly 14 million spindles and two lakh looms. The cotton mill industry is at present the biggest organised industry in India and occupies a pivotal position in the economy of the country. Next to the U.S.A., India is the world's largest producer of cotton textiles as well as the leading exporter of cloth.

After the achievement of the Independence of the country, great emphasis has been laid by the Government on the development of handloom industry also and, as a result, the production of handloom cloth has increased from 1,400 million yards at the end of the First Five-Year Plan (1955-56) to about 1,907 million yards in 1959. The total production of cotton textiles by mills, handlooms and powerlooms in 1959 was of the order of 7,183 million yards.

CHAPTER II

COTTON CULTIVATION

Cotton belongs to the genus *Gossypium* of the 'Malvaceae' or 'Mallow' family. All the cultivated cottons fall under four species, viz. : (i) *G. arboreum* ; (ii) *G. herbaceum* ; (iii) *G. hirsutum* ; and (iv) *G. barbadense*. The first two belong to the Old World and the last two to the New World. Each of these comprises of a large number of races based on geographical distribution and associated genetical features.

India grows a large number of cotton types belonging to *G. arboreum*, *G. herbaceum* and *G. hirsutum*. Types belonging to *G. barbadense* are not grown on a commercial scale, but perennial types of this species are found as home-yard plants in a number of States. About 75 per cent of the crop is made up of two Asian species *G. arboreum* and *G. herbaceum*, designated generally under the term *desi* cottons. The cotton types belonging to *G. hirsutum* are cultivated largely in Madras, Mysore and the Punjab and are designated as American cottons.

For trade and agricultural purposes, the various cottons grown in India are classified and designated by regional or local names. The trade classification along with details of quality characteristics and period of sowing and harvesting, as adopted by the Indian Central Cotton Committee in 1958, is given in Appendix.

CLIMATIC AND SOIL REQUIREMENTS

Cotton is generally a warm weather crop and requires a long growing season, varying between 150 and 200 days. It cannot thrive in cold regions where hot summers are absent. For successful cultivation, it requires a frost-free growing season with high temperature, sufficient soil moisture and fairly dry ripening season. The most favourable growth takes place when the days are continuously warm and there is an abundance of sunshine.

Given the climatic conditions required for its growth, cotton can be cultivated successfully on a variety of soils, varying from stiff clays to sandy. A deep rich soil with good water-holding capacity is, however, considered suitable for profitable cultivation of cotton. In India, cotton is grown through a long stretch of land, extending from the Himalayan ranges to the southern-most parts in the South, having great variations in soil and climatic conditions. Bulk of the cotton crop in India is rainfed and the best crop is produced in a season in which the total rainfall is 20 to 25 inches, well-distributed over the entire growing period.

The vast diversity in the agro-climatic conditions found in various cotton tracts in India is responsible for the adoption of varied agricultural practices in different regions, the large number of cotton varieties grown and the varying yields of *kapas* obtained. Ecologically, the cotton growing tracts of India have been grouped into following six distinct zones :

1. Northern *hirsutum-arboreum* Region comprising the Punjab, Western Uttar Pradesh, Delhi and North-West Rajasthan.
2. Central *arboreum* Region comprising Madhya Pradesh, South Rajasthan, South Saurashtra tract of Gujarat State, and Khandesh, Marathwada and Vidarbha tracts of Maharashtra State.
3. Southern *hirsutum-arboreum* Region comprising Madras and Kerala States.
4. Central *herbaceum-arboreum-hirsutum* Region comprising Southern Orissa, Andhra Pradesh and Mysore States.
5. Western *herbaceum* Region comprising Gujarat State (excluding South Saurashtra) and Mysore State (Karnatak areas growing Jayadhar cotton).
6. Eastern Region comprising Assam, Manipur, Tripura, Orissa, Bihar and West Bengal States growing *arboreum* types.

CULTURAL PRACTICES

There are two major cotton growing seasons—*kharif* commencing from April-May and *rabi* commencing from August-September. The former is predominant in the northern States while the latter is predominant in the southern States. A small crop during the summer season, March-September, is also raised in Madras State. The methods of cultivation of cotton vary in different parts of the country, depending on soil and weather conditions, varieties grown and the season. The crop is generally sown broadcast in the Punjab and the adjoining areas of Rajasthan and Uttar Pradesh. In the black cotton and red soil tracts of Peninsular and South India, the crop is usually sown in lines. The seed-rate and the spacing of the crop differ from tract to tract, and sometimes even in the same tract, depending on various factors, such as soil fertility, soil moisture and cultural practices. On an average, the seed-rate may be taken at the rate of 20 lbs. per acre in the case of rainfed crop and at the rate of 10 lbs. per acre in the case of irrigated crop. Ordinarily, the cotton crop is not manured. It is the preceding food crop in the rotation that is generally manured.

SOWING AND HARVESTING SEASONS

The length of growing period of individual varieties of cotton, variation in climate and altitudes of different parts of the country, determine the sowing and harvesting periods. Table 1 gives the main seasons of sowing and harvesting of cotton in different States of India,

TABLE 1. SOWING AND HARVESTING SEASONS OF COTTON IN DIFFERENT COTTON GROWING STATES OF INDIA

State	Sowing months	Harvesting months
Andhra Pradesh	June-July	October-December
	August-September	February-April
Assam	April-May	November-December
Bihar	April-May	September-January
Gujarat	June-July	January-March
Kerala	May-June	December-January
Madhya Pradesh	April-July	October-January
Madras	February-March	August-September
	September-October	February-April
Maharashtra	May-June	October-February
Mysore	June-July	October-December
	August-September	February-March
Orissa	April-July	September-January
Punjab	April-July	September-January
Rajasthan	April-July	September-December
Tripura	April-May	November-January
Uttar Pradesh	April-July	September-January

It will be observed from the above Table that sowing season in India extends from February-March to September-October, but the bulk of the crop is sown during the period April-July. Harvesting commences from September-October and it progresses in some tracts till March-April of the next year.

As a result of the research work carried out under various schemes of the Indian Central Cotton Committee, several improved varieties of cotton have been evolved and released for general cultivation. In 1958-59, about 70 per cent of the total cotton area was covered by improved varieties. The improved varieties, now in cultivation, not only meet the appreciable part of our mill demand for cotton of better types but, because of their high yield per acre and comparatively high price that they fetch, are also responsible for bringing in more money in the pockets of cotton growers. Apart from the progress made in the total coverage of area by improved varieties, there has been progressive increase and change in the quality of the Indian cotton crop. The production of short staple (11/16" and below) in 1958-59 was only 16 per cent of the total production in that year as against 34 per cent immediately after the partition of the country.

CHAPTER III

PRODUCTION

WORLD ACREAGE AND PRODUCTION

Cotton is cultivated in about 60 countries, but nearly 85 per cent of the world production is concentrated in eight countries, viz., the U.S.A., the U.S.S.R., China, India, Mexico, Egypt, Pakistan and Brazil. The production of cotton which suffered a set-back during the Second World War, and had declined to 21 million bales in 1945, has been showing an upward trend since 1946. In 1958-59, a record production of 44.6 million bales was reached.

The world annual acreage under cotton averaged 80,164 thousand acres during the triennium ending 1958-59. Till 1955-56, among the cotton producing countries of the world, the U.S.A. ranked first in area under cotton, followed by India. During the triennium ending 1958-59, India ranked first with about 25 per cent of the total world area, followed by China, the U.S.A. and the U.S.S.R. There has been a gradual and significant decline in the area under cotton in the U.S.A. which is attributed to its policy of acreage restrictions and general increase in the average per-acre yield.

The annual average world production of cotton during the triennium ending 1958-59 was 42.8 million bales (478 lbs. each). In production, the U.S.A. ranks first, accounting for about 28 per cent of the total world production. The U.S.S.R. takes the second place in production with about 17 per cent, followed by China and India with about 16 per cent and 10 per cent, respectively.

PRODUCTION IN INDIA

ACREAGE

The area under cotton in India is about 7.5 per cent of the total cropped area of the country and is next to rice, *jowar*, *bajra*, wheat and gram. Before the Second World War, India was producing between five and six million bales of cotton annually. The war brought great changes in the supply and demand for cotton in India. The loss of Continental and Far Eastern markets left a large surplus of short staple cotton, and with the stoppage of imports of rice from Burma and other Far Eastern countries, India became deficit in rice supply. For increasing food production and for reducing cotton surplus, particularly that of short staple, the production of cotton was, therefore, restricted. With the cessation of hostilities and later on with the par-

tition of the country in August 1947, which resulted in the transfer of areas producing superior varieties of cotton to Pakistan, India felt an acute shortage of cotton compared to her requirements. The Indian Union which had the entire concentration of textile mills was left with 60 per cent of the total production of cotton of undivided India. India which was known in the world for her large export of cotton became a net importer of raw cotton for meeting her own requirements. The Government of India, therefore, took several measures to augment the production of cotton. As a result of the steps taken, the area under cotton increased from 10,655 thousand acres in 1947-48 to 19,978 thousand acres in 1955-56 (at the end of the First Five-Year Plan) and the production during the corresponding period increased from 2,188 thousand bales to 4,000 thousand bales. The acreage achieved exceeded the target fixed for the First Five-Year Plan at 18 million acres. The average annual acreage for the triennium ending 1958-59 for the major cotton growing States and their percentage share to the total Indian acreage are given in Table 2.

TABLE 2. AVERAGE ANNUAL ACREAGE UNDER COTTON IN DIFFERENT STATES OF INDIA AND THEIR PERCENTAGE TO TOTAL ACREAGE (TRIENNium ENDING 1958-59)

State	Area (thousand acres)	Percentage to total acreage
Bombay (Maharashtra and Gujarat)	10,912	54.8
Mysore	2,658	13.4
Madhya Pradesh	1,936	9.7
Punjab	1,474	7.4
Madras	1,089	5.5
Andhra Pradesh	966	4.9
Rajasthan	584	2.9
Uttar Pradesh	181	0.9
Others	105	0.5
Total	19,905	100.0

The bulk of the cotton crop in India is rainfed. The total irrigated area under cotton in undivided India, during 1946-47, was 4,100 thousand acres out of which the Indian Union accounted for only 800 thousand acres. The acreage under irrigated cotton has since increased steadily and at the end of the year 1958-59, it was over 2,500 thousand acres, being about 13 per cent of the total area under cotton in the country. The irrigated cotton is mostly concentrated in the Punjab where 94 per cent of the cotton crop is under irrigation.

The distribution of cotton area is shown in Figure 1.

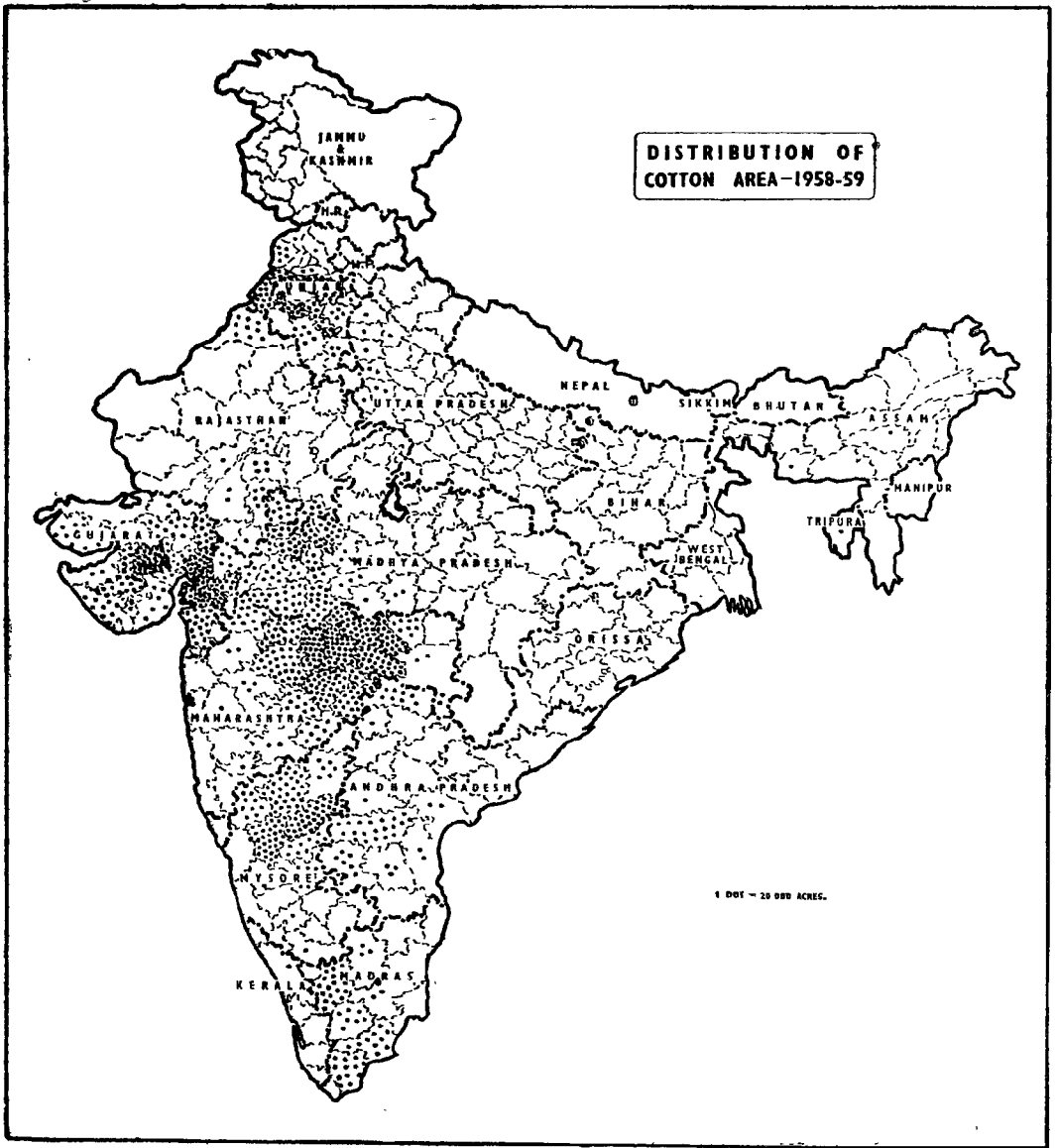


Fig. 1. Distribution of Cotton Area

PRODUCTION

The average annual production of cotton for the triennium ending 1958-59 for the major cotton growing States, as published in the final cotton forecasts issued by the Directorate of Economics and Statistics, Ministry of Food and Agriculture, is indicated in Table 3.

The annual production estimates as published in the final forecast reports differ from those estimated by the Indian Central Cotton Committee. In 1958-59, the Indian Central Cotton Committee estimated a total produc-

tion of 5,140 thousand bales against 4,705 thousand bales published in the forecast reports.

TABLE 3. AVERAGE ANNUAL PRODUCTION OF COTTON IN MAJOR COTTON GROWING STATES AND THEIR PERCENTAGE TO TOTAL INDIAN PRODUCTION (TRIENNIMUM ENDING 1958-59)

State	Production (thousand bales of 392 lbs. each)	Percentage to total Indian production
Bombay (Maharashtra and Gujarat)	2,286	48.4
Punjab	779	16.5
Madhya Pradesh	472	10.0
Mysore	451	9.5
Madras	356	7.5
Rajasthan	179	3.8
Andhra Pradesh	131	2.8
Uttar Pradesh	48	1.0
Others	24	0.5
Total	4,726	100.0

VARIETYWISE ACREAGE AND PRODUCTION

The acreage and production of cotton as per revised trade classification introduced in 1958-59 are shown in Table 4.

TABLE 4. AREA AND PRODUCTION OF COTTON IN INDIA ACCORDING TO TRADE DESCRIPTION (OFFICIAL ESTIMATES)

Trade description	Area (thousand acres)			Production (thousand bales of 392 lbs. each)		
	1956-57	1957-58	1958-59	1956-57	1957-58	1958-59
Americans	3,543	3,328	3,186	1,389	1,176	985
Bengals	876	1,066	1,166	322	461	397
Broach-Vijay	1,506	1,442	1,485	340	349	454
Comillas	55	53	52	17	16	11
Dholleras	2,088	2,345	2,416	408	368	640
Hyderabad Gaorani	2,030	1,031	1,072	270	160	148
H.420 (including Verum and Others)	744	734	730	153	136	137
Malvi	1,018	1,143	1,074	249	252	224
Oomras	1,852	1,610	1,396	327	283	232
Southerns (Cocanadas, Chinnapathi, Jayadhar, Kumpta, Karungannies, Mungari, Northerns and Westerns)	2,314	3,140	3,067	366	567	539
Surti-Vijalpa (including Suyog)	710	754	705	169	162	212
Virnar (including Jarila)	3,157	3,350	3,476	725	809	726
Total	19,893	19,996	19,825	4,735	4,739	4,705

With the loss of West Punjab and Sind, growing mainly medium and long staple cottons, the Indian production of long staple cotton in 1947-48 was reduced to 15 per cent and that of short staple increased to 34 per cent. As a result of special efforts made, the lost position has been completely regained during the last decade and the requirements of the mills for superior cotton, up to 1-1/16", are completely met. During the triennium ending 1958-59, production of long staple cotton varied between 35 and 42 per cent, that of medium staple between 41 and 49 per cent and that of short staple between 15 and 17 per cent of the total production.

YIELD PER ACRE

Among the major cotton growing countries of the world, the yield per acre in India is only higher to Uganda. The highest yield per acre of cotton in the world is obtained in the U.S.S.R. and during the triennium ending 1958-59 the average unit yield was 634 lbs., nearly 2.5 times the world average. Egypt has been traditionally a high yielding country and is next only to the U.S.S.R. The other high yielding countries are the U.S.A., Peru, Mexico and the Sudan. The average unit yield in India during the triennium ending 1958-59 was 93 lbs. of lint per acre. In India, the highest unit yield is obtained in the Punjab, where the average during the triennium ending 1958-59 was 207 lbs.

Even though the average per-acre yield of cotton has shown some improvement during the recent years as a result of sustained efforts of the Indian Central Cotton Committee, it still continues to be about the lowest in the world and is not even half of the world average. There is still great scope for enhancing the average per-acre yield through cultivation of improved high yielding varieties, application of manures and fertilisers, extension of irrigation facilities, adoption of improved cultural practices and control of insect pests and diseases. The efforts that are now being made, therefore, require to be further intensified.

CHAPTER IV

IMPORTS AND EXPORTS

INTERNATIONAL TRADE IN COTTON

Out of the annual total world production of cotton, about one-third enters into international trade. The main importing countries are the non-producing countries of Japan, the United Kingdom, West Germany, France and Italy. The continent of Europe as a whole, accounts for over 60 per cent of the total world imports. Imports into the United Kingdom, France, West Germany and Italy alone constitute about 31 per cent of total world imports. Individually, Japan is the most important importer, accounting for about 18.6 per cent of the total world imports. Imports into India are only about three per cent of the total world imports.

The major exporting countries are the U.S.A., Mexico, the U.S.S.R. and Egypt. The exports from these countries constitute about 37.6, 10.6, 10.4 and 8.4 per cent, respectively, of the total world exports. Peru, the Sudan, Uganda, Pakistan, Syria and Brazil are the other important exporting countries. India's share in exports is negligible.

INDIAN IMPORTS AND EXPORTS

The pattern of imports and exports of cotton into and from India since partition of the country in 1947 has been influenced by: (i) the national and international developments; (ii) changes in the supply position of cotton in the country; (iii) trends in textile production; and (iv) the general policy of the Government in regard to price levels.

The import policy of the Government has been dictated by the need for making available to mills adequate supplies of cotton, particularly of long staple. Since 1954-55, when India achieved self-sufficiency in its requirements of cotton up to 1-1/16", imports of foreign cotton of staple length of 1-1/16" and above are only made against the quota fixed from time to time after taking into consideration the requirements of different qualities, price trends and the tight position of foreign exchange. Besides, imports are also made under various bilateral trade agreements entered into with some foreign countries. Cotton of staple length of 1-1/16" to 1-3/16" is imported mainly from the U. S. A. and East Africa, while that of staple length of 1-3/16" and above is imported from Egypt, the Sudan and Peru.

The export policy of the Government of India, relating to cotton, has been conditioned by the necessity of conserving supplies to meet the needs

of the local mill industry and to have a comfortable carry-over to meet the emergency in case of a lean year. After meeting home requirements, the surplus of cotton, almost of short staple varieties, like Bengals, Comras and Dholleras, is allowed to be exported. Assam/Comillas, for which there is no demand in India and for which there is a ready market in Japan and the U.S.A., are freely allowed for export. With a view to stabilising the prices of varieties of cotton exported, the export duty on cotton is adjusted from time to time so as to bring the prices in line with those of comparable varieties grown in and exported from other countries. During the triennium ending 1958-59, the annual exports of cotton varied between 299 thousand bales and 400 thousand bales, about five to six per cent of total production. The bulk of the exports was taken by Japan; China and the United Kingdom also purchased appreciable quantities. In addition to the exports of raw cotton, India also exports cotton textiles and earns foreign exchange to the tune of rupees 50-60 crores annually.

CHAPTER V
6
UTILISATION

Cotton has virtually no limitation on its use. The National Council of America lists more than sixty industrial uses of cotton, which include its use in the form of such diverse items as automobile tyres, machinery belting, furnishing fabrics and upholstery, and numerous other items. Cotton waste is utilised for the manufacture of soft furnishings, such as curtains and upholstery, loose covers and sheetings, and blankets and towels. It is also used for making of quilts, mattresses, cordage, etc. Cotton linters, obtained in the process of delinting of cotton seed, provide cellulose material for gun cotton, rayons, lacquers, etc. In India, the main use to which cotton is put is spinning. The consumption of cotton by the Indian spinning mills constitutes about 90 per cent of the total production in the country, while extra-factory consumption accounts for nearly three to four per cent.

RETENTION BY PRODUCERS

The growers retain some quantities of *kapas* for purposes of obtaining pure seed for sowing and for utilising the resultant lint for domestic consumption, such as hand-spinning, making of quilts and mattresses, cordage, etc. The percentage of *kapas*, generally of *desi* varieties, retained by the producers for seed and domestic purposes, as revealed during the survey, was negligible in case of Madras and ranged between one to two per cent (Marathwada tract of Maharashtra State) and 10 per cent (Gocanada tract of Andhra Pradesh) in other cotton producing tracts.

QUANTITIES UTILISED FOR DOMESTIC CONSUMPTION IN VILLAGES

In villages, cotton is used for stuffing and hand-spinning. Mostly *desi* cotton is retained in unginning form, but in some places, loose, factory-ginned, lint is also used. Taking 0.524 lb. of lint as extra-factory consumption per head, estimated earlier by the Indian Central Cotton Committee, the extra-factory consumption in 1947-48 for the Indian Union was estimated as 270 thousand bales. With a view to obtaining an up-to-date estimate of extra-factory consumption of cotton, fresh surveys were conducted in 1955-56 in the States of Madras, the Punjab, and Hyderabad (erstwhile). The total extra-factory consumption for Madras State was estimated to be 6,519 bales; about 2.3 per cent of the normal production of cotton in that State. The overall *per capita* extra-factory consumption, for domestic purposes, in

that State worked out to about 1.3 ozs. In the Punjab, the total consumption of raw cotton for extra-factory purposes was estimated to be 1,00,181 bales in 1956; 66 per cent of this was used for stuffing purposes, 27 per cent for spinning and the rest for miscellaneous purposes. The extra-factory consumption formed about 16.5 per cent of the total production of cotton in this State.^c In the erstwhile Hyderabad State, the overall *per capita* consumption for extra-factory purposes was estimated to be 5.2 ozs.

^c QUANTITIES AND QUALITIES UTILISED FOR HAND-SPINNING AND BY TEXTILE MILLS

It is difficult to estimate the quantities used for hand-spinning in villages. As per information supplied by the Khadi and Village Industries Commission, Bombay, 43,772 and 37,455 bales were utilised by different certified *khadi* institutions during the years 1957-58 and 1958-59, respectively, in the important cotton growing States of Andhra Pradesh, Maharashtra, Gujarat, Madhya Pradesh, Madras, Mysore, the Punjab, Rajasthan and Uttar Pradesh.

The mill consumption of cotton has undergone a remarkable change and has been progressively increasing during the recent years. The total consumption of cotton, both Indian and imported, increased from 3,685 thousand bales in 1949-50 to 5,071 thousand bales in 1958-59. The off-take of Indian cotton has been on progressive increase while that of imported cotton has been on the decline. It is worthy of note that the consumption of Indian cotton which was 69 per cent of the total mill consumption in 1949-50 increased to 91 per cent in 1958-59, while the consumption of imported cotton decreased from 31 per cent to 9 per cent during the same period. As regards qualities of cotton used, almost the entire production of long and medium staple varieties produced in the country is utilised by the Indian mills, while the consumption of short staple varieties by the mills is only about one-third of the production of such types. The imported varieties are of staple length 1-1/16" and above.

The position of supply, demand and carry-over of cotton in India for the five years ending 1958-59 is given in Table 5.

It will be observed from Table 5 that prior to 1955-56, about two-thirds of the total available supplies of lint used to be utilised annually. Thereafter, there has been an increase in the utilisation and, on an average, about 76 per cent of the total available supplies are being utilised annually.

PER CAPITA CONSUMPTION OF COTTON AND CLOTH IN INDIA

The partition of India in 1947 affected adversely the supply position of raw cotton in India, and, consequently, the availability of cotton lint in India fell to 3.3 lbs. per head in 1950, while the *per capita* availability of cloth in that year was 9.7 yards. The Government of India, therefore, took immediate steps to raise the *per capita* availability of cloth by imposing controls

on exports of raw cotton and cloth and by increasing production of raw cotton. As a result, the *per capita* availability of cotton cloth in India increased to 16.3 yards in 1959. The *per capita* consumption of cotton lint in India as compared to other foreign countries is very low. In 1957, the *per capita* consumption of cotton lint in India was 4.9 lbs. as compared to 22.5 lbs. in the U.S.A., 15.4 lbs. in Canada and 14.1 lbs. in the United Kingdom.

TABLE 5. POSITION REGARDING SUPPLY AND DISTRIBUTION OF COTTON IN INDIA—
1954-55 to 1958-59

	1954-55*	1955-56	1956-57	1957-58	1958-59
	(year beginning on 1st September)				
(thousand bales of 392 lbs. lint each)					
Supply					
Opening stocks on 1st September					
(a) With mills	1,211	1,622	1,614	1,344	1,275
(b) With trade	985	1,122	352	430	835**
Production@	5,292	4,463	5,003	5,168	5,140
Imports	614	610	607	398	405
Total Supply	8,102	7,817	7,576	7,340	7,655
Distribution					
Mill consumption of					
(a) Indian cotton	4,138	4,366	4,666	4,433	4,616
(b) Foreign cotton	631	603	567	566	455
Exports	319	612	299	308	400
Extra-factory consumption	270	270	270*	290*	290*
Total Distribution	5,358	5,851	5,802	5,597	5,761
Percentage to total distribution	66.1	74.8	76.6	76.3	75.3
Carry-over on 31st August					
(a) With mills	1,622	1,614	1,344	1,275	1,439
(b) With trade	1,122	352	430	468	455
Total Carry-over	2,744	1,966	1,774	1,743	1,894
Percentage to total distribution	33.9	25.2	23.4	23.7	24.7

@ Production figures as estimated by the Indian Central Cotton Committee.

* Includes Ambar Charkha consumption.

** Revised estimate.

CHAPTER VI

PREPARATION FOR MARKET

In India, picking of cotton by hand is the only method followed so far. *Kapas* is picked from the open bolls with the fingers and is collected in a container which may be a sack, a basket or a fold of cloth kept in the lap or at the back. The operation of picking is slow, tedious and expensive. Generally, women are employed to pick cotton as they are reputed to be better pickers than men. The quantity picked per day per person ranges from 20 to 60 lbs. The number of pickings and the interval between each picking differs not only from State to State but also from tract to tract in the same State, according to variety. The number of pickings ranges from two in Bihar and Gujarat to 20 in Kerala. Generally, the number of pickings is more for *desi* varieties (six to ten) than for American (three to six). The interval between two pickings is also less in case of *desi* varieties. In case where more than three pickings are taken, the bulk of the crop is picked in second and third pickings.

During the picking and storing of cotton, the producers do not take adequate precautions so as to pick and market clean cotton. When cotton is picked early in the morning it is wet with dew and generally it is not dried before storing. The leaves and portions of burrs being brittle, get easily mixed with the cotton when picked during the later part of the day, when it is hot. Cotton is frequently piled on the bare ground and it then gets mixed with dirt and small stones. It is an age old complaint that proper care is not taken in picking of seed cotton in India with the result that the grade of the resultant lint, after ginning, is lower than what it would be if the cotton is picked with proper care. The defects in picking not only react on the prices paid to the growers but also affect the quality of yarn produced from that lint. Clean picking of cotton is, therefore, very necessary and to achieve this, the cultivators require to be educated.

Wages for picking are mostly paid, now-a-days, in cash, though in some places payment in kind is still practised. The cost of picking in India, as prevailing in 1957-58, was about rupees two to rupees three per standard maund of seed cotton. In the system of payment in kind, the pickers are usually paid a portion of the day's picking. This system no doubt expedites the harvesting of the crop and also relieves the growers of the necessity of supervising the pickers, but it results in some carelessness on the part of the pickers. The picker's sole object is to pick as much seed cotton as possible and he is, therefore, indifferent.

GINNING AND PRESSING

Ginning, i.e., separating the cotton fibres from the seed to which they are attached, is the first mechanical process to which seed cotton is subjected to. It is not only an essential process but also an important one, as any damage to fibre at this stage cannot be rectified later on.

Many centuries ago, when India was known for its fine cotton fabrics and till the introduction of machine ginning in India by the Britishers in the sixties of the nineteenth century, ginning of cotton was done by an indigenous wooden hand-gin, called a *charkha*—the first recorded gin. Though all the cotton required by mills is now machine ginned, some cotton required for domestic purposes and for hand-spinning in the villages is still being ginned, to a limited extent, on improved *charkhas*.

In India, improved models of the Whitney saw gin, placed in the American market, were not imported till about 1835. These were, however, not found suitable for Indian cotton. It was only during the period of development of railways in about sixties of the nineteenth century that ginning and pressing machines came to be used on some scale in India. The types of gins now operating in India can be classified into: (i) single and double-roller gins; and (ii) saw gins. Of the machine gins installed in India, about 80 per cent are single-roller and 20 per cent double-roller type. The number of saw gins is, however, insignificant. Saw gins are found mostly in the Punjab State and to some extent in Marathwada region of Maharashtra State. Single-roller, double-action gins are found in the States of Gujarat, Maharashtra, Madhya Pradesh and Rajasthan, while double-roller gins are mostly found in Andhra Pradesh, Madras and Mysore. In the Punjab, all the three types of gins are found. Both *desi* and American varieties of cotton are ginned on single or double-roller gins. Saw gins are, however, most suited for American cottons. The average output of lint of a single unit of single-roller, double-roller and saw gin is about 450 to 500 lbs., 700 lbs. and 5,000 lbs., respectively, per day of eight working hours.

The saw gin is reported to produce cleaner lint, free from dust and trash, than that processed by roller gins. It consumes less power and gives better output of lint per hour. On the other hand, it has certain drawbacks, such as expensive equipment, requires skilled supervision, low ginning outturn, etc. It is not considered suitable for ginning cotton with a very long staple. It is reported that in the Punjab, a premium of Rs. 4.50 to Rs. 5 per standard maund is paid for lint obtained from saw gins.

The cost of the imported saw gins in 1959 varied from Rs. 24,250 for a plant of 1/90 saw gins with a capacity to gin 550 lbs. of lint per hour to Rs. 1,13,500 for a plant of 2/90 saw gins with a capacity of 1,600 lbs. of lint per hour. The new roller gins, both single and double, are not being imported now. Some factories have been set up for manufacturing gin parts and they assemble the gins with a few imported parts. The price of locally assembled

double-roller gin as quoted in 1959 was Rs. 2,500 to Rs. 3,000 as against Rs. 6,700 quoted for an imported gin of Platts make. The demand for double-roller gins is increasing and is being met by gin assembling factories.

In 1958, the total number of ginning factories in the country was 2,853 and that of pressing factories 983. While most of the ginning factories are owner-operated, a few are owned by textile mills. Ginning factories run by co-operative factories are found in Gujarat, Madras, Mysore and the Punjab. Ginning factories usually work for a period of six to seven months only in the year and remain idle during the rest of the period. In some factories, subsidiary units, like rice hullers, groundnut decorticators, oil mills, etc., are installed and worked during the slack season.

The main season for ginning commences from October-November and continues up to May-June in the States of the Punjab, Rajasthan, Uttar Pradesh, Madhya Pradesh and Maharashtra. In the States of Andhra Pradesh, Madras, Mysore and Gujarat, the season extends from February to June-July.

Kapas as brought in the ginning factories contains impurities of two kinds, viz.: (i) stained and immature locks and leafy material, which could be picked by hand; and (ii) leaf trash in the form of hulls, stalks and leaf bits, and dirt and sand, which stick to the fibres and cannot be removed by hand. The former are removed by hand, mostly by women, while the latter are removed by passing the *kapas* through special cleaning machinery, like openers or extractors. About one-fourth of the ginning factories in India have the cleaning machinery. The pre-cleaning or opening treatment to the *kapas*, before ginning, is very essential and is of great importance as the pre-removal of trash yields cleaner lint which gives better yarn and consequently better finish of the fabrics.

The charges for ginning vary widely within a State and between different States. During 1958-59, the charges ranged between Rs. 9 and Rs. 18 per candy (784 lbs.) of lint in the various States. No difference is made in charges for roller and saw gins. Slight distinction is, however, made between different varieties of cotton ginned at the same centre. For example, in Mysore at Bellary, Rs. 10 to Rs. 14 are charged for *desi* varieties as against Rs. 12 to Rs. 15 for American varieties.

To facilitate easy handling of lint, it is packed for commercial purposes into *katcha* or *pacca* bales. While pressing into *pacca* bales of 392 lbs. net of lint is universal, pressing into *katcha* bales of 400 to 575 lbs. of lint is only done at places where facilities for *pacca* pressing are not available and is noticed in southern Gujarat only. The pressing machine commonly used is of hydraulic type and the power used is either steam or electricity. The output of a pressing factory ranges from 80 to 150 bales per day. The normal dimensions of the bale are 50" x 18" x 20" with a density of 36 lbs. per cubic foot. In all the States, each bale is marked with a serial number, the year and the press mark, as required under the Cotton Ginning and Pressing Factories Act,

1925. For each of the compressed bale, jute hessian cloth measures about $2\frac{1}{2}$ to $3\frac{1}{2}$ yards and 72 feet of baling hoops, in three strips of 24 feet each, are required.

The cost of pressing varies from State to State and from centre to centre within a State. In 1958-59, the charges per bale of 392 lbs. of lint each, ranged between Rs. 6.62 in the Punjab and Rs. 14.62 in Khandesh and Marathwada regions of Maharashtra State. It is only in the Punjab State that the pressing charges are fixed by the State Government every year, since 1955, though late in the season.

LOSS IN PREPARATION

Picking of *kapas* is usually continued till the last opened bolls are picked; the loss due to unpicked *kapas* left on the plants is, therefore, negligible. However, if there is any delay in picking, there is fall of *kapas*, comparatively more in the case of American varieties than in *desi* varieties, from the opened bolls and loss on this account is estimated to be only half to one per cent. Damage by rats in the field is also reported from a few areas. During cleaning of *kapas*, before ginning, a loss of about one to two per cent in the case of rainfed varieties and about three to five per cent in the case of irrigated produce is reported from various States. It is estimated that during ginning and pressing, there is a loss of one to two per cent and about quarter to one per cent, respectively.

GINNING AND PRESSING POOLS

In some of the marketing centres, ginning and pressing factories have come up in such large numbers that there is not enough of produce to permit economic working of all factories throughout the season.* To remove competition and to avoid any losses, the ginning and pressing factory owners of a particular centre form into pools. Under this system, few selected factories, number depending upon the availability of produce, are allowed to operate and the rest forced to remain idle. Uniform ginning and pressing charges for the centre, generally on the high side, are fixed by the Pool Organisation and a portion of this charge is paid towards, what is called, the Pool Fund. The amount so collected is distributed among the idle members on some agreed basis. Generally, in case of ginning pools, it is divided according to the number of gin units in each of the factories constituting the pool and in case of pressing, the amount is generally distributed among the members equally. The pools, though have their utility, have more or less resulted in a monopoly. There is no control on the formation and working of pools. The Indian Cotton Committee, as early as in 1919, in their report regarded the practice of pooling by the ginning and pressing factories as objectionable and prejudicial to the interests of the growers. Later on, in 1951, the Cotton Enquiry Committee appointed by the Ministry of Food and Agriculture in their report recommend-

ed that the pooling among the ginning and pressing factories should be allowed only under a permit.

COTTON GINNING AND PRESSING FACTORIES ACT

On the recommendations of the Indian Cotton Committee appointed by the Government of India, in 1917, to enquire into the matter of improving cotton growing and marketing conditions, the Government of India passed the Cotton Ginning and Pressing Factories Act, 1925, with the object of having some control on the cotton ginning and pressing factories. The Central Act provides for maintenance of registers, submission of returns of cotton ginned and pressed and compulsory compliance with certain structural requirements of factories. Marking of each bale with a press mark and a serial number is obligatory. The Act empowers the State Governments to make rules by notification in the official gazette. The Act is in force in all the cotton growing States.

In the Central Act, however, the system of licensing of the ginning and pressing factories and prohibition of unhealthy practices did not find any place. This matter was subsequently considered by the Government of India who decided not to make any Central legislation for the purpose but to leave the matter to the discretion of the State Governments. Many of the State Governments have accordingly amended their Acts. The administration of the Act in the States is partly with the State Directors of Agriculture and partly with the District Collectors or the Deputy Commissioners. The latter have not been provided with requisite supervisory staff, and in case where this is provided it is not adequate to check malpractices with the result that these go unchecked.

CHAPTER VII

MARKETING

READY MARKETING

TYPES OF MARKETS

As a result of development of communications and irrigation, consequent on the expansion of exports of raw agricultural commodities in the first half of the nineteenth century, self-sufficed type of farming gave place to commercialised system, which necessitated assembling of surplus produce at central places and consequently development of market centres. Chronologically, cotton markets were perhaps the earliest to develop in India.

Cotton markets in India may be classified into : (i) village or primary markets ; (ii) secondary or wholesale markets ; and (iii) terminal markets. Before the cotton lint reaches the ultimate consumer, viz., a textile mill, it generally moves from the farm to the primary market, from primary to the secondary market and from secondary to the terminal market. In the primary market, assembling of unginned cotton by producers themselves takes place, while in the secondary or wholesale market, both assembling and distribution take place.

The villages as well as the periodical markets known by different names, such as *haths* and *painths* in northern India and *shandis* in Madras, form the primary markets. The periodical markets are usually held once or twice a week on fixed days at convenient centres in the villages. It is estimated that there are over 22,000 such markets in India. These markets are either owned and controlled by landlords or by the local bodies. In these markets, a very wide range of commodities is brought for sale. The quantities of *kapas* generally brought in these markets are, however, negligible. The buyers are generally the village and itinerant merchants and there are usually no intermediaries except brokers found in a few markets. These markets lack even the elementary amenities, such as stalls, cattle sheds, water troughs and parking facilities.

Secondary markets are wholesale daily markets, known as *mandis* or *gunjs*. These are mostly situated in the important trading towns, generally near the railway stations, and serve an area extending to a radius of 20 to 40 miles. The total number of important wholesale markets dealing in all agricultural commodities in India is estimated to be over 2,300. Of these, cotton markets number about 500. These are either owned by private persons

or by local bodies. In some centres, the shops of the commission agents, through whom the produce is sold, are centralised, while in others they are scattered over the entire town. They are congested and lack civic amenities. In some regulated markets, spacious market yards with commission agents' shops centralised at one place have been set up.

Terminal markets are those in which cotton lint is sold to textile mills, exporters and traders, dealing directly with the consumers or engaged in inter-State trade. These markets are also known by other names, such as Mill Markets or Spinners Markets. The buyers in these markets buy their requirements through the cotton firms and other agencies. Bombay, Coimbatore, Ahmedabad and Kanpur are some of the terminal markets in India of which Bombay is by far the largest.

MARKET FUNCTIONARIES

The various functionaries concerned with both the assembling and distribution of cotton, comprise of *adattias* (commission agents), *dalals* (brokers), weighmen, *hamals*, etc. The *adattias* sell or buy the produce on behalf of their clients and play an active part in the assembling and distribution of cotton. There are two classes of *adattias*—*katcha* and *pacca*. *Katcha adattias* are men of small means who operate in the assembling markets and only sell the produce on commission basis on behalf of either the producer-sellers or the village and itinerant merchants. They render all necessary services implied in the transfer of goods. They also finance the producers and the village merchants. *Pacca adattias* are men with capital who generally operate in the wholesale markets and buy on behalf of outside merchants. They work on commission basis and undertake to attend to all processes till the despatch of the goods to the purchaser. They also operate as wholesale merchants and buy and sell on their own account. In terminal markets, like Bombay, *adattias*, who are known as *muccadams*, act on behalf of the sellers in the upcountry markets and perform all the functions involved in the sale of cotton. They receive their commission from the sellers in accordance with the rates fixed by their association.

Brokers or *dalals* act as intermediaries between the sellers and the buyers and their main function is to bring together these two parties. They act either for sellers or buyers, and sometimes for both. They do not have the other responsibilities of the commission agents. They are found in many markets, regulated or otherwise, and handle both *kapas* and lint. There is another class of brokers operating in the terminal markets who exclusively deal with cotton firms and textile mills. They take the lint samples and contact cotton firms and textile mills and thus help in bringing about the transactions.

Another class of functionaries, locally known as *tolas* (weighmen), operate

in many markets, both terminal and secondary. Their function is to weigh the produce and are supposed to be responsible for correct weighing. They either work independently and receive payment on job work basis or are employees of commission agents and traders.

The other functionaries generally found in the wholesale markets are *hamals*, sweepers, water suppliers and other servants, who attend to the convenience of the *adatia's* clients.

The principal types of traders are village *banias*, itinerant merchants, upcountry wholesale merchants and cotton firms located in the terminal markets, like Bombay, with their agencies in the interior. In the upcountry markets, *pacca adatias* and owners of ginning factories also function as wholesale merchants. Cotton firms located in Bombay and other terminal markets are really the important cotton merchants, who prominently figure in the distribution of cotton lint. Most of them have their offices at Sewri, the centre of spot cotton trade in Bombay.

In the terminal markets, surveyors are also found and their job is to survey the goods in respect of which there is a dispute between the seller and the purchaser.

MARKET PRACTICES

In Villages. In villages, *kapas* is sold by the producers either to village or itinerant merchants who visit the villages during the cotton season. The transactions are done usually at any hour of the day. Deals are made directly by the growers and village merchants without any intermediaries. However, when cotton merchants and agents of ginning factories or textile mills make purchases in the villages, they engage the services of local village merchants who act as brokers and also look after the handling work. As the produce is sold in a small lot on the spot and the buyers make a thorough examination before they enter into any transaction, there are no disputes in the village transactions.

In the markets which are regulated and are managed by market committees, the business is conducted according to the bye-laws framed by the respective market committees, while in unregulated markets, the business is either conducted in accordance with the local traditional customs and practices or in accordance with the bye-laws framed for the purpose by the local trade associations.

The carts laden with *kapas* reach the markets in the evening or early morning. The produce is assembled in front of the commission agents' shops either in open heaps or in carts. Before the sales begin, the buyers generally go round and inspect the lots. The sales generally take place during the fixed hours. In markets where open auction system is in vogue, the buyers go from shop to shop and bid for various lots. In most of the cotton markets, almost in all States, delivery is made either at the buyer's godown or at the

ginning factory, where weighment is also done. The produce is taken by the producers themselves in their own carts. The commission agents generally pay the producer-sellers on the same day and it is particularly so in the regulated markets. The commission agents are paid by the buyers later on, and they charge no interest for payment made within the days of grace extending over a fortnight. There are no arrangements for settlement of disputes in markets that are not regulated. In these markets, the disputes arising at the time of weighment and delivery are settled by the commission agents generally in favour of the buyers. In regulated markets disputes are first referred to the secretary of the market committee who brings about mutual settlement, failing that the disputes are referred to the Disputes Sub-Committee of the market committee.

In Terminal Markets. The Sewri market, located in the port area at Bombay, is the most important cotton spot market in India. The building at Cotton Green, Sewri, provides rooms for the buyers and the sellers in separate wings, a big trading hall and a commodious room for examining samples of cotton. The arbitration and appeal rooms are capable of handling 300 to 350 surveys and appeals per hour. Standard types of different varieties of cotton as approved by the East India Cotton Association are also kept for reference and for surveying of samples under dispute. All cotton bales arriving in Bombay for sale are generally stocked here in warehouses and storage sheds provided for the purpose.

The samples of cotton available for sale are displayed by the sellers in their stalls. The sellers either directly or through their brokers approach the buyers with the samples of cotton and enter into transactions. After the samples are approved and prices settled, the buyer or his agent stamps the bales from which the approved samples are drawn and completes the contract. The contracts for sale and purchase of ready cotton are prescribed under the bye-laws of the East India Cotton Association, Bombay, and include, besides quality, the arbitration and penalty clauses.

For the purpose of final inspection of the lot and its approval, the buyer is entitled to sample five per cent of the bales offered for sale. Usually, a sample of 12 lbs. (10 lbs. from soft side and 2 lbs. from hard side) is collected from each of the selected bale. The bales sampled are stamped by the buyer and remain in the seller's possession till delivery. Lint is delivered by the sellers at the textile mills or the godowns of the cotton firms. On delivery, the produce is weighed in the presence of the buyers and the sellers or their agents. Payment is generally made immediately after delivery and acceptance of the produce. The disputes, if any, are settled according to the arbitration procedure prescribed under the bye-laws of the East India Cotton Association.

All disputes as to quality, between a buyer and a seller, arising out of a contract made subject to the bye-laws 35 and 36 of the East India Cotton

Association Ltd., are referred to arbitration of two surveyors. If they differ as to their award, a third surveyor is appointed to work as umpire. The award of the surveyors or the arbitrators where no appeal is preferred is final and binding on the parties concerned. An appeal against the award of the surveyors or arbitrators or umpire lies to a panel of three surveyors who have not already acted in the same dispute. The Board from time to time constitutes a Super Appeal Committee to decide appeals, if any, against awards of the panel of surveyors. The decision of this committee is final. The samples from the lots referred to for arbitration are drawn under bye-law 95 of the association, within the specified time.

UNITS OF PRICE QUOTATIONS

The prices of *kapas* are quoted in rupees, and units of price quotations vary from State to State or even within the State. In the Punjab, Rajasthan and Uttar Pradesh States, prices are quoted per standard maund; in Andhra Pradesh, the units of price quotation are *putty* (500 lbs.), *kantlam* (1,680 lbs.) and *naga* (392 lbs.); in South Gujarat, prices are quoted per *bhar* (12 maunds); while in the Karnatak, the unit is *naga* (16.5 standard maunds) or *palla* (3 standard maunds). In Madras, the unit of quotation is generally *pothi* (247 to 332 lbs.); while in Marathwada, the unit is a *palla* (3 standard maunds); in Vidarbha, the unit is generally a candy (784 lbs.); and in Madhya Pradesh, the unit for *kapas* is generally a *mani* (6 or 12 standard maunds).

The units adopted for pressed cotton lint and unpressed lint also vary. The units generally followed for unpressed lint are: *naga* (392 lbs.) in Andhra Pradesh; *palla* (3 standard maunds) in Marathwada; *naga* (12 maunds of 28 lbs. each) in Mysore and Karnatak areas; candy (784 lbs.) in Madras State; and standard maund in other States. Prices of pressed lint are invariably quoted for a candy (two bales). With the change-over to metric system, a quintal has been accepted as a unit of quotation for general adoption in the country.

METHODS OF SALE

Village sales take place either on the farms or in the shops of the village merchants where the *kapas* is brought for sale. The sales are mostly by direct negotiations between the producer-sellers and the buyers who are generally the village or itinerant merchants, or the agents of the cotton merchants or gin-owners of nearby markets. In the wholesale market, the methods of sale commonly followed are open auction system, *fardi* system, blockwise system, open agreement system and cover system.

Open auction system in which each individual seller's produce is auctioned separately is followed in most of the regulated and some unregulated

wholesale markets (Plate I). This system appears to be the best method of securing competitive price to the growers.

According to the *fardi* system, followed in Marathwada region of Maharashtra State and some markets of Andhra Pradesh, all the commission agents in a market are divided into six groups and one day in a week is allotted to each group for auction of the produce arriving in the shops of the commission agents of that group. The auction is not conducted lotwise but for the entire produce of that group. The highest bid quoted in the auction becomes the ruling price for the fair average quality of the day and it is obligatory for the highest bidder to purchase all the lots in the group at that price. This system has the advantage of quick disposal of lots, particularly in markets where the arrivals exceed one thousand carts per day during the peak season. As the price is quoted without inspection of the lots, this system leads to many quality disputes with the result that at the time of delivery the price is generally reduced.

Another system of sale which deserves special mention is the *hatta* (cover) system followed in some markets of Vidarbha region of Maharashtra State, and Rajasthan. Under this system, the buyers after examining the lot convey their offers to the *adatia* by some signs communicated by claspings of fingers under the cover of a piece of cloth. The offers are only known to the *adatia* who informs the seller of the highest price offered.

The other methods of sale followed are blockwise system, a modification of *fardi* system in the Raichur market of Mysore State, and secret tender system in the Salem market of Madras State. In addition to these, open agreement system, in which negotiations take place between the sellers and the buyers directly, is followed in many markets.

Forward sale system, locally known as *badalu-veyuta* or *anamathu* system in Andhra Pradesh and *anamat* in Gujarat, is also in vogue in those parts. In this system, the produce is deposited with cotton merchants or gin-owners with a view to disposing of the same at a future date when the market is favourable. This method of sale is speculative.

MALPRACTICES

The survey revealed that in the cotton markets in India, many unhealthy practices, such as watering of cotton, mixing of superior varieties with inferior varieties of cotton, mixing of damaged cotton with good cotton, and mixing extraneous matter, such as cotton waste, cotton seed, twine, etc., are still in vogue. These malpractices are, to a greater extent, indulged into by the itinerant or village merchants or by the ginning factories.

ASSEMBLING AND DISTRIBUTION

The various channels through which cotton moves from the farm to the consumer may be seen in Figure 2.

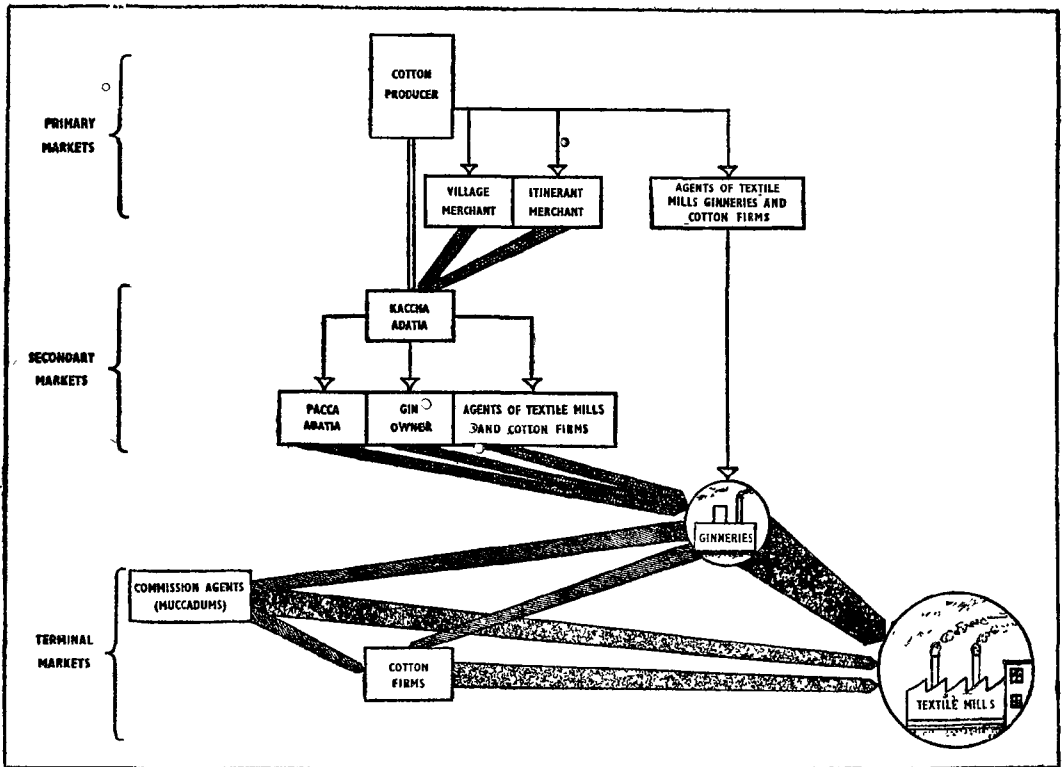


Fig. 2. Channels of Movement of Cotton from Producer to Textile Mill

The assembling of small lots of *kapas* produced on small and scattered holdings constitutes an important function of cotton marketing process. Cotton in India is by and large assembled from the farms in unginning form as *kapas*. It is estimated that annually about two to four per cent of the total production is assembled in the form of lint by a few large growers, the Government seed farms or co-operative societies. Assembling of cotton is done both in the villages and in the wholesale cotton markets. The percentage of produce sold in the villages and the percentage assembled by various agencies vary considerably. Table 6 shows the percentage of total produce sold by the growers in the villages, the type of buyers and the percentage purchased by each.

It will be observed that sales in the villages still appear to be predominating, particularly in the States of Uttar Pradesh and Madras, and that village merchants play a prominent part in the assembling of cotton in the villages.

The general movement of *kapas* from the villages is in the direction of the assembling markets in the nearby towns. The village merchants or the itinerant dealers take the *kapas* purchased in the villages in lots to the wholesale markets for sale. Some of them take the produce in the form

TABLE 6. PERCENTAGE OF TOTAL PRODUCE SOLD BY GROWERS IN VILLAGES AND TAKEN TO TOWN MARKET FOR SALE

State	Percentage sold in villages to				Total	Percentage taken by the producers to town markets
	Village merchants	Itinerant dealers	Cotton merchants	Gin-owners and textile mills		
Andhra Pradesh	20	9	6	—	35	65
Gujarat	23	7	12	8	50	50
Madhya Pradesh	30		—	—	30	70
Madras	27	—	22	11	60	40
Maharashtra— Khandesh and Marathwada	40	—	—	—	40	60
Vidarbha	30		—	—	30	70
Mysore	36	2	—	2	40	60
Punjab	17	9	14	5	45	55
Rajasthan	35	1	9	—	45	55
Uttar Pradesh	75	—	—	—	75	25

of lint after getting the *kapas* ginned in village ginneries, wherever this facility is available. The growers who do not sell in the villages take their produce generally in the form of *kapas* to the *mandis* for sale. In all the wholesale cotton markets, growers form the major assembling agency and assemble from 46 per cent (in Madras) to 74 per cent (in Madhya Pradesh) of the total arrivals. Village merchants form the next important assembling agency followed by the itinerant dealers. The quantity of produce assembled by the co-operative societies is, however, negligible, except in South Gujarat, where more than 60 per cent of the produce is assembled by the co-operative societies.

In the wholesale markets, cotton merchants and ginning factory owners are the important buyers. In Andhra Pradesh, Madhya Pradesh, Mysore, the Punjab and Uttar Pradesh States, ginning factory owners account for a fairly large proportion of the total purchases. Of late, the textile mills have also been making direct purchase of cotton in the assembling markets, particularly in Khandesh and Marathwada regions of Maharashtra State, Madhya Pradesh, Madras and Rajasthan. Some of the textile mills even have their own

ginning and pressing factories where *kapas* purchased by them is ginned and processed.

In the secondary markets, the distribution of cotton takes place either in the form of pressed bales or loose lint, packed into containers. The important distributing agencies are the cotton merchants in the wholesale markets, ginning factory owners, cotton firms in terminal markets and co-operative organisations. Wholesale merchants and ginning factory owners dispose of their lint to cotton firms or textile mills of nearby areas or send the same to Bombay or other terminal markets for disposal. The cotton firms at Bombay sell the lint either locally to textile mills or export the same. Co-operative organisations engaged in the distribution of cotton are only found in Gujarat State and to some extent in Vidarbha region of Maharashtra State.

Looking at the present methods of assembling and distribution of cotton in different States, it will be seen that the growers sell their produce in the form of *kapas*, and processing and further handling is done by the middlemen. The sales in the villages, particularly in the States or in the areas where regulated markets have not yet been established, still predominate. Establishment of a chain of market yards under the supervision of the market committees will greatly encourage a large number of growers to take their produce to the centralised yards.

MARKETING SEASON

Marketing of cotton in India generally commences from October in northern States and from February in southern States. Due to a large number of varieties grown in the country and the wide range in harvesting period, cotton marketing season in the country as a whole, as will be observed from Table 7, is more or less spread over the entire year. This is particularly so in the southern States of Andhra Pradesh, Madras and Mysore.

PERIODICITY OF ARRIVALS

From the monthly figures of arrivals of cotton collected from some markets in the States of Andhra Pradesh, Gujarat, Maharashtra, Madras, Mysore and the Punjab given in Table 8, it will be observed that allowing for a small difference, more than three-fourths of the cotton produced in India may be said to leave the producers' hands during the four months—November-February in northern India and February-May in southern India—although the arrivals in the markets continue for six to eight months in northern States and practically throughout the year in southern States. Arrivals are mostly in the form of *kapas* though in some markets, particularly Andhra Pradesh and Mysore States, they are also in the form of lint.

MARKETING OF COTTON IN INDIA

TABLE 7. NORMAL PERIOD OF MARKETING OF DIFFERENT VARIETIES OF COTTON IN INDIA

Trade description	Varieties	Marketing season
Americans	1. Buri-American	December-June
	2. Indo-American strains	November-May
	3. Laxmi	February-August
	4. Madhya Pradesh-American	December-June
	5. Madras Cambodia Uganda	March-September (winter) and October-January (summer)
	6. Madras Cambodia Others	
	7. Mysore-American 5 (M.C.A.5)	February-July
	8. Parbhani-American	November-June
	9. Punjab-American	October-March
	10. Rajasthan-American	October-March
	11. Vidarbha-American	December-June
Bengals	1. Punjab Desi	October-March
	2. Rajasthan Desi	October-March
	3. Uttar Pradesh Desi	September-December
Broach-Vijay		January-June
Comillas		November-June
Dholleras	1. Kalyan	January-June
	2. Mathio (including Pratap)	January-June
	3. Saurashtra and Kutch Dholleras	January-June
Hyderabad Gaorani	1. Gaorani 6	November-April
	2. Gaorani 12	November-April
H.420		November-May
Malvi		November-April
Oomras	1. Barsi-Nagar Oomras	October-August
	2. Bombay-Vidarbha Oomras	October-August
	3. Hyderabad Oomras	October-August
	4. Madhya Pradesh Oomras	October-August
Southernns	1. Chinnapathi (short staple)	April-August
	2. Cocanadas	February-August
	3. Jayadhar	March-August
	4. Karungannies	March-September
	5. Kumpta Ordinary	April-August
	6. Mungari	November-April
	7. Westerns	February-August
	8. White and Red Northernns	February-June
Surti-Vijalpa (including Suyog)		January-June
Virnar (including Jarila)		October-May
Sea Island (Andrews)		November-March

TABLE 8. PERIODICITY OF ARRIVALS OF KAPAS IN THREE STATES IN NORTHERN INDIA—AVERAGE 1955-56 TO 1957-58 (AVERAGE MONTHLY ARRIVALS EXPRESSED AS PERCENTAGES OF AVERAGE TOTAL ARRIVALS)

Month	Maharashtra					
	Khandesh	Marathwada	Vidarbha	Total	Gujarat	Punjab
	Number of markets on which the average is based					
	3	3	3	9	2	4
September	—	2.4	—	0.8	—	1.2
October	3.5	9.4	4.6	5.8	—	9.0
November	23.7	16.2	26.3	22.1	—	25.4
December	27.2	30.9	19.2	25.8	—	22.8
January	20.5	22.2	19.7	20.8	10.1	20.6
February	10.6	11.0	11.4	11.0	26.5	12.5
March	5.6	4.6	8.1	6.1	40.3	6.4
April	5.4	2.6	5.5	4.5	19.3	2.0
May	3.1	0.6	4.5	2.7	3.0	0.1
June	0.4	0.1	0.7	0.4	0.8	—
July	—	—	—	—	—	—
August	—	—	—	—	—	—
Total	100.0	100.0	100.0	100.0	100.0	100.0

PERIODICITY OF ARRIVALS OF KAPAS IN THREE STATES IN SOUTHERN INDIA—AVERAGE 1956 to 1958 (AVERAGE MONTHLY ARRIVALS EXPRESSED AS PERCENTAGES OF AVERAGE TOTAL ARRIVALS)

Month	Andhra Pradesh • Madras Mysore		
	Number of markets on which the average is based		
	2	1	7
January	4.1	1.5	1.5
February	11.2	4.3	4.9
March	27.9	20.1	29.2
April	38.6	28.4	34.5
May	14.8	12.9	14.7
June	2.1	5.8	3.4
July	0.3	6.9	1.3
August	0.2	6.0	0.9
September	—	4.9	1.1
October	0.1	3.3	2.5
November	0.3	3.2	3.3
December	0.4	2.7	2.7
Total	100.0	100.0	100.0

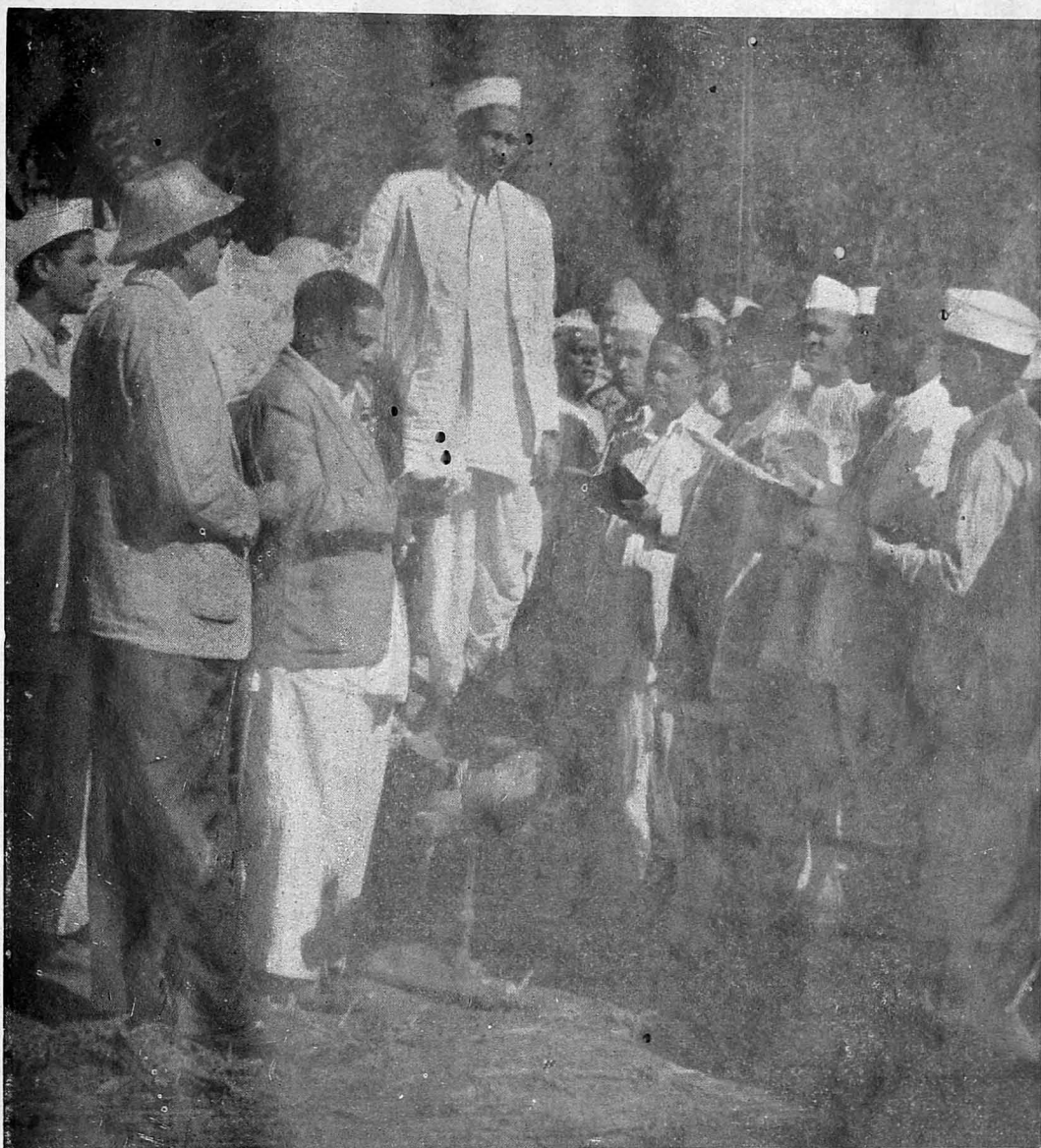
MARKETING COSTS

As in the case of other agricultural commodities, the sellers and buyers of cotton have to pay a number of charges and deductions while selling or buying in an assembling market. These include commission, brokerage, charges for handling and weighment, storage charges, hire for containers, etc., besides the municipal tolls and taxes and market fee levied by market committees in the regulated markets. In addition to the merchandising charges mentioned above, the producer-sellers are quite often required to pay certain conventional charges, such as *dharmada*, for services of clerks and other workers engaged by the commission agents, etc. Unwarranted trade allowances for quality, generally in kind, are also deducted. There is, however, no uniformity in regard to the rate of levy of various market charges, even in the same region, and the incidence of these varies not only from region to region but also from market to market in the same region.

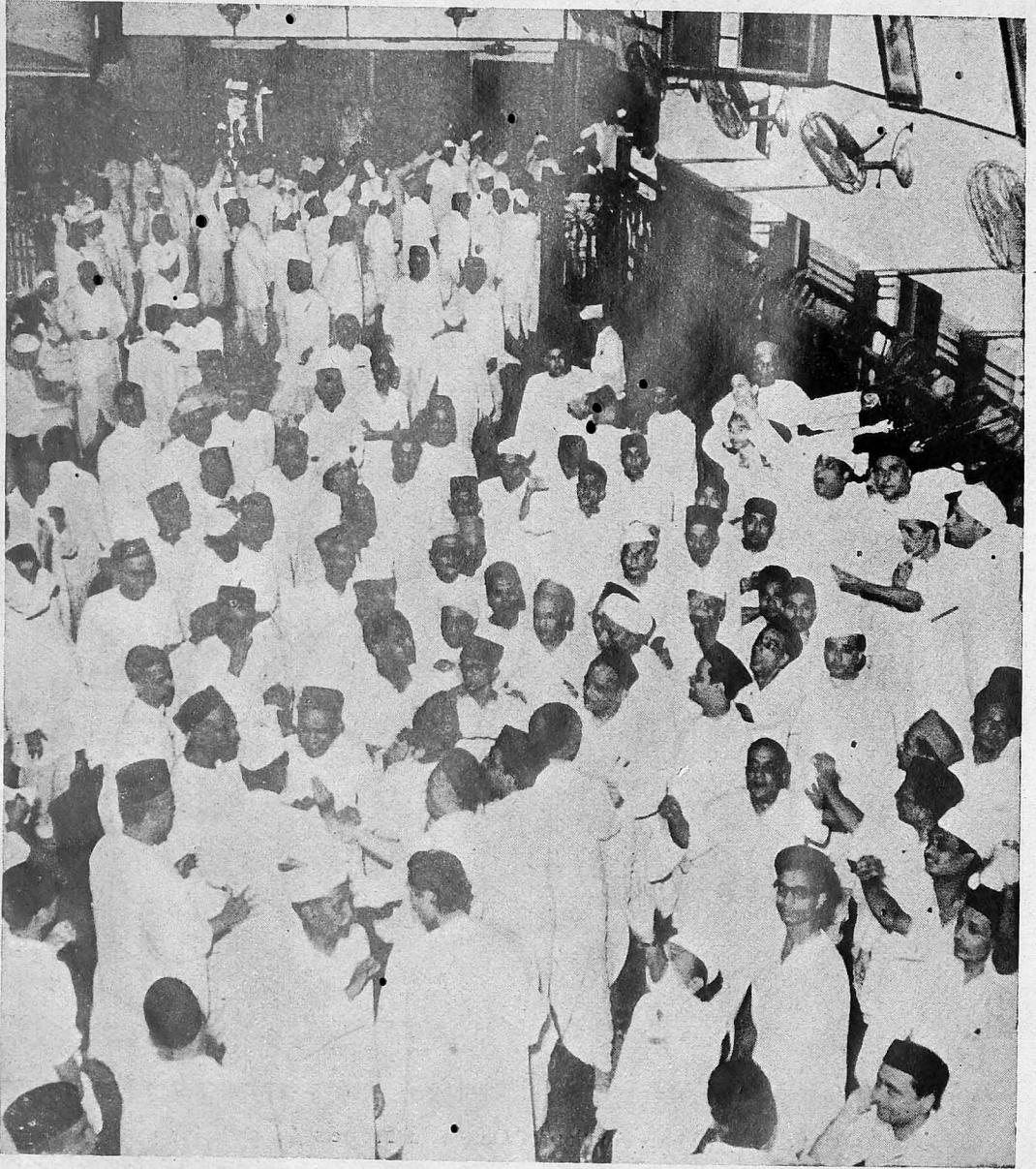
The commission is generally fixed in terms of per hundred rupees worth of goods and varies from Rs. 0.50 to Rs. 1.75. In some markets of Gujarat and Mysore States, commission is recovered on unit basis. It varies from 4 nP. to 31 nP. per standard maund of *kapas*. The rates of brokerage range widely between 3 nP. and 30 nP. per standard maund. Weighment charges are generally recovered per unit of weight and vary from 2 nP. to 12 nP. per standard maund. In the Punjab, weighment charges are collected at 12 nP. to 22 nP. per hundred rupees of the value of the produce. Charges for weighment of full-pressed bales range from 6 nP. to 15 nP. per maund. The municipal tolls and taxes are levied in almost all the markets, except in Madras, and recovered from the sellers, generally on the basis of means of transport employed, and vary from 6 nP. to 25 nP. per cart.

The sales in the villages do not involve payment of any merchandising charges as all the operations are generally attended to by the producer-sellers themselves. However, in some tracts of Andhra Pradesh and Madras States, where large quantities of *kapas* are purchased in villages, merchandising charges are borne by the buyers and they work out to about rupees two per Rs. 100 worth of *kapas*. The incidence of total assembling costs per Rs. 100 worth of *kapas*, as estimated during the survey, ranges between Rs. 1.15 in Jambusar market of Gujarat State to Rs. 4.46 in Raichur market of Mysore State. The incidence of charges is observed to be comparatively higher in the markets of Rajasthan and Mysore States.

Distribution costs consist of a number of items, such as handling at the ginnery and at the railway station, railway freight, insurance, commission and brokerage, etc. The charges generally paid at Bombay market are inclusive of commission, weighment and *hamali*. Distribution costs at various centres, as determined during the survey, range between Rs. 6.65 in Jambusar market and Rs. 10.66 in Kapasin market, per Rs. 100 worth of lint.



Open Auction of Cotton in Progress



Trading Ring of the East India Cotton Association

The total cost of marketing involved in the movement of cotton from villages to terminal market of Bombay has been estimated to vary from Rs. 115.35 to Rs. 169.05 per candy (784 lbs.) of lint and roughly works out to about 15 per cent of the total realisation from lint and cotton seed. The break-up of average total marketing costs under broad heads is given below.

Item	Average (per cent)
Assembling costs at secondary market	16.8
Processing costs (ginning and pressing)	35.1
Transport from secondary to terminal market	19.0
Distribution costs	29.1
	100.0

The percentage share of the total marketing costs paid by the producer-sellers was found to vary between 1.1 per cent in Jambusar market of Gujarat State to 21 per cent in Raichur market of Mysore State.

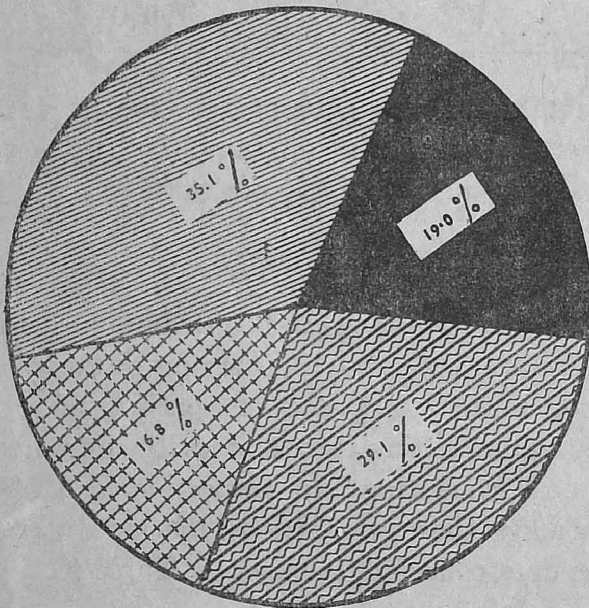
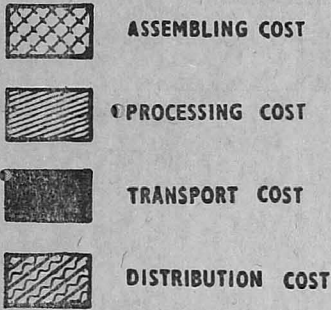
PRODUCER'S SHARE IN CONSUMER'S PRICE

The variation in the methods of assembling and distribution, varied market charges recovered in different tracts, and the varying distances for which the cotton is to be carried, make study and comparison of price spreads difficult. An *ad hoc* study of marketing costs and price spread was, however, made by the Directorate of Marketing and Inspection in 1955-56 at selected centres and the percentage share realised by the producers in different States, as revealed by the data collected, is shown in Table 9.

TABLE 9. PERCENTAGE PRICE SPREAD FOR COTTON IN DIFFERENT STATES

Item	Madhya Pradesh (purchases made by a local mill at Indore)	Madras	Mysore	Gujarat	Punjab
		Tirupur-Coimbatore	Hubli-Bombay	Surat-Bombay	Tarn Taran-Bombay
Producer's share	90.11	88.00	82.50	91.54	86.07
Merchandising charges (at assembling and distributing centres)	1.04	2.92	4.06	1.04	4.18
Processing cost	5.11	3.01	6.38	2.68	3.11
Merchant's profit	1.95	3.98	2.60	0.40	2.19
Transport	0.42	1.71	3.44	1.37	1.33
Others	0.96	0.38	1.47	2.97	3.12

DISTRIBUTION OF COST OF MARKETING OF COTTON IN INDIA



PRICE SPREAD IN MARKETING OF COTTON IN INDIA

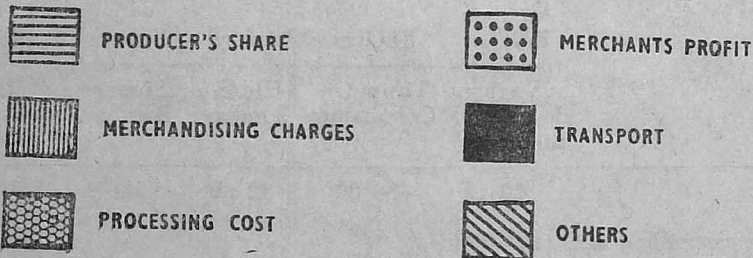
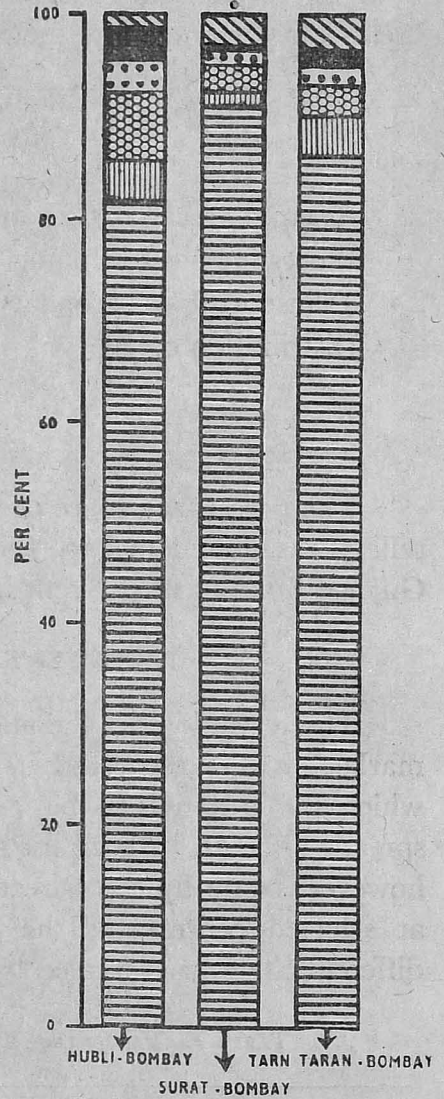


Fig. 3. Distribution of Cost of Marketing of Cotton in India

The data in Table 9 indicate that in Surat tract of Gujarat, where co-operative marketing is organised, the processing and merchandising charges are the lowest and consequently the net price obtained by the producer is higher than that in other regions.

Average cost of marketing and price spreads in some markets are shown in Figure 3.

In 1958-59, the Directorate of Marketing and Inspection made a study of price spreads relating to sale of cotton effected through some cotton co-operative societies. The percentage share of the producers in the ultimate price paid by the consumers and the percentage of various items of expenditure are shown in Table 10.

TABLE 10. PERCENTAGE SHARE OF PRODUCER IN PRICE PAID BY CONSUMER WHEN SALES ARE MADE THROUGH CO-OPERATIVES

	Surat	Abohar	Gadag
a. From assembling market	Surat	Abohar	Gadag
b. To consuming market	Bombay	Kanpur	Bombay
c. Distance from assembling to consuming market	163 miles	503 miles	491 miles
d. Variety	Vijalpa	320F	Laxmi
e. Price per candy paid by consumer	Rs. 1280.41	Rs. 1136	Rs. 1125
f. Agencies engaged in assembling	Co-operative societies	Co-operative societies	Co-operative societies
g. Items handled by co-operative societies	2 to 8	2 to 4	2 and 3
	(per cent)	(per cent)	(per cent)
1. Net share of producer	88.99	87.13	83.42
2. Transport from farm to market	0.39	0.88	0.82
3. Assembling costs	0.88	0.69	2.00
4. Ginning and pressing charges	4.27	3.37	4.47
5. Transport from <i>mandi</i> to destination	1.36	1.77	2.07
6. Distribution costs including margins	1.85	2.93	3.53
7. Loss in handling	1.69	2.54	2.20
8. Insurance, interest, etc.	0.57	0.69	1.49
Total	100.00	100.00	100.00

The data given in Table 10 clearly indicate that where the assembling, processing and distribution of the produce are all done through different links of co-operative societies, as in Surat area, the net returns realised by the producers are generally high.

REGULATION OF MARKETS

For improving the chaotic conditions existing in the wholesale markets and for solving some of the many marketing problems, one of the institutions that has been developed and is extending in this country is that of regulated markets. These are the markets which are regulated and managed under the State Agricultural Produce Markets Acts.

The main object of these Acts is to regulate the sale and purchase of the agricultural commodities in the wholesale markets and to create conditions for a fair competition in the market and enable the cultivators to have a fair deal. The Act provides for notification of intention of the Government to regulate a particular market and the commodities to be brought under the purview of the Act. The markets are managed by market committees on which are represented the growers, traders, co-operatives, local bodies and the Government. The growers are generally in majority and are either elected or nominated. The Act prohibits recovery of unauthorised trade allowances and lays down the functions of the market committees.

Statutory regulation of agricultural commodity markets has been introduced in the States of Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Madras, Mysore, Orissa and the Punjab. Out of over 700 wholesale markets regulated in these States, 400 markets have been handling cotton. Their distribution is as under :

State	Number of regulated cotton markets
Andhra Pradesh	18
Gujarat	65
Madhya Pradesh	40
Maharashtra	106
Madras	18
Mysore	75
Punjab	78
Orissa	--
Total	400

The latest information in regard to volume of *kapas* and lint handled in these markets is not available. However, in 1954-55, it was estimated by the Directorate of Marketing and Inspection that about 45 per cent of the total cotton production was sold in about 300 markets regulated at that time.

The regulated markets are managed by duly constituted market committees on which are represented the producers, the traders, the co-operatives and the Government. The ethics of business code to be observed in the regulated markets have been laid down under the bye-laws framed by the market committees and approved by the State Governments. The market committees have either set up new central market yards or have recognised the old market places as yards wherein all the produce is assembled and business transacted under the direct supervision of the staff of the market committees. Among the benefits that have accrued to the producer-sellers as a result of regulation of markets, special mention may be made of reduction in market charges, rationalisation of market practices, correct weighing of goods, arrangement for settlement of disputes, dissemination of current market information and provision of amenities in the market yards for the comforts of both the producers and the traders. As a result of defining of the market charges and prohibiting of the unauthorised deductions, there has been a visible reduction, varying from 26 to 69 per cent, in the marketing charges payable by the producer-sellers. Besides the savings effected in market charges the farmers have realised comparatively higher prices from the open auctions.

Though regulation of markets on the whole has exercised a wholesome influence on the marketing structure, it has not secured a very high degree of protection to the small growers as envisaged in the objectives of the Acts. In the States where regulation of markets has been introduced, though considerable progress in extending the application of the Acts to a number of markets has been made, still a large number of markets remain outside the regulatory orbit. For achieving the desired objectives, effective enforcement of the provisions of the Acts and Rules and rigid control and supervision of these markets is essential. It is, therefore, necessary to strengthen the State marketing organisations with a view to extending this developmental activity and having effective control and supervision over the market committees. In some cotton growing States, like Uttar Pradesh and Rajasthan, regulation of markets has not yet been introduced. These States may take necessary steps to enact the necessary Markets Acts and come in line with other cotton growing States.

CO-OPERATIVE MARKETING

Cotton Co-operative Sale Societies. Co-operative cotton marketing societies have been organised in the country under the Co-operative Societies Act of 1912. The first co-operative cotton sale society was set up at Gadag in the Karnatak region, now in Mysore State, in 1917. The progress of the co-operative marketing societies in India till recently was slow and chequered. Various committees who have examined the working of co-operatives in India from time to time have recommended re-orientation and

strengthening of co-operative marketing organisation. In 1954, the Committee of Direction of All-India Rural Credit Survey of the Reserve Bank of India examined the question of development of co-operative marketing and made several recommendations in this regard. In pursuance of the recommendation of this committee, a National Co-operative Development and Warehousing Board has been constituted for undertaking a countrywide programme for the development of co-operative marketing and processing with the needed financial, administrative and technical assistance from the State. As a result, new co-operative marketing societies are being set up and the existing ones re-organised with the ultimate object of having at least one co-operative marketing society at each of the important *mandi* centres.

In the year 1957-58, there were reported to be in all 4,600 marketing societies including 16 apex societies for all agricultural commodities. Of these, the number of societies handling cotton in the different States was 325, with 128 in the composite Bombay State, 113 in the Punjab, 39 in Mysore and 20 in Madras. Most of the co-operative societies in the country, except those in southern Gujarat, act as commission agents for the disposal of the members' produce. Provision of credit facilities to the members and supply of agricultural implements, fertilisers, seeds, etc., to their members are also some of their other functions. Some societies, particularly in Gujarat, pool and process the produce of the members before sale. Some societies in Andhra Pradesh, Gujarat and Madras States also undertake processing of *kapas* of their members. The market or service charges collected by the societies are mostly the same as collected by the commission agents in the same market. There is, however, some saving to the members in the commission charges collected from them.

The co-operative societies derive their finance from the share capital raised from the members and also contributed by the Government. The Central Co-operative Banks help the marketing societies by extending cash credit facilities; in addition, the societies also enjoy over-draft facilities from various banks. The State Governments also assist by way of loans, grants-in-aid and subsidies.

In some States, co-operative cotton sale societies have formed into unions and federations. These bodies work mainly as a liaison body between the sale societies and the cotton buyers and arrange sale of cotton of their member societies.

The total value of cotton handled by co-operative marketing societies during 1957-58 was about Rs. 10.28 crores. The crop sold after pooling and processing was about one-tenth of the total handled by the societies. Taking the value of total cotton crop of the year as around Rs. 200 crores, the produce sold through co-operative marketing societies comes to about five per cent of the value of the total cotton crop. This indicates that

co-operative marketing societies still play only an insignificant part in the marketing and processing of cotton in India.

Co-operative Ginning and Pressing. In pursuance of the recommendations of the All-India Rural Credit Survey Committee of the Reserve Bank of India (1954), processing of agricultural commodities on co-operative basis is being organised and expanded. The number of cotton pressing societies has, therefore, increased appreciably during the Second Plan period. In 1957-58, 77 such societies were functioning, most of them being located in Gujarat and Maharashtra States. In Andhra Pradesh and Madras States, there are no separate co-operative ginning and pressing societies, but some of the co-operative marketing societies for processing of their members' produce have either their own ginning factories or engage the services of some private ginning and pressing factories. A few of the cotton sale societies operating in Maharashtra sell the members' cotton after getting it ginned and pressed in private factories. The ginning and pressing charges collected by the processing societies are generally the same as those collected by other factories in the same centre and no difference is made between a member or a non-member for recovery of charges. The individual grower-members or the societies are, however, given a rebate per bale after the close of the year.

Ginning of cotton is a type of industry which can lend itself to co-operative work. Therefore, with a view to preventing exploitation of the cotton producers, co-operative processing may be encouraged.

Among the various cotton co-operatives working in the country, the progress made by the cotton co-operative sale and ginning and pressing societies working in Surat and Broach districts of Gujarat State deserve special mention. The co-operatives in South Gujarat have attained a strong position *vis-a-vis* the middlemen and traders. The percentage of cotton crop handled or marketed through marketing societies was over 63 per cent of the total production of the region in 1958. The sale societies have been able to inspire confidence among the producer-members and have attracted deposits which amounted to over Rs. 82 lakhs by November 1956. The existence of the co-operative sale and processing societies has exercised a very wholesome influence on the rates of ginning and the merchandising practices in general.

One of the objectives of co-operative marketing is to effect economy in the marketing cost by bringing about integration of some functions now performed by various intermediaries. The marketing costs as now recovered by the co-operative societies more or less are the same as those incurred during the sale through ordinary channels. The costs incurred on ginning and pressing of cotton form a substantial proportion and there is a room for reduction under this head. It is, therefore, highly desirable that the co-operative marketing societies also take up the function of processing and sell their members' produce after getting it ginned and pressed.

Mention may also be made of Gadag Cotton Co-operative Sale Society. It has the distinction of being the first cotton co-operative of the country. The society is the sole distributor of improved cotton seed in the area and maintains a chain of 22 depots in the area. The society pools the certified *kapas* received during a fortnight or any period fixed and auctions the same after grading it on the basis of ginning outturn and cleanliness. The members receive the pool price of the grade and for the auction.

FORWARD MARKETING

One of the most interesting scientific advances in the modern system of marketing is the application of the theory of price risk insurance through the mechanism of futures market. The exact dates for the beginning of trading in cotton futures are not definitely known. It is, however, certain that forward trading in some form existed even before cotton exchanges were established in some of the cotton producing or consuming countries. The important cotton futures exchanges of the world came into being during the last one and half centuries. Some important exchanges are the Liverpool Cotton Association (U.K.) ; The New York Cotton Exchange, New Orleans Cotton Exchange, Chicago Board of Trade (U.S.A.); and East India Cotton Association, Bombay (India).

In India, Bombay has been the biggest centre for organised trading in cotton since the early days of the nineteenth century. The first body to control the cotton trade in Bombay was the Bombay Cotton Trade Association Ltd., established in 1875. Many rival bodies also came up during the period intervening between 1892 and the break of the First World War. In 1918, a Cotton Contracts Committee was appointed and the Cotton Contract Rules framed under the Defence of India Act. The committee established a clearing house and introduced licensing of brokers and a system of periodical settlements. With the lapse of the Defence of India Act in 1919, this committee was replaced by the Cotton Contracts Board. On the recommendation of the Indian Cotton Committee, made in their report submitted in 1919, a central organisation, viz., the East India Cotton Association Ltd., recognised under the Bombay Cotton Contracts Act 1922, was established in 1922 to regulate the trading in cotton in Bombay. Some of the dissidents formed Shree Mahajan Association in 1925. During and after the Second World War, forward trading in cotton was controlled and the futures trading operated with interruptions.

In 1952, the Government of India passed the Forward Contracts (Regulation) Act. The Act is an enabling measure and provides for the regulation of forward trading and prohibition of options in goods. The main principle underlying the provisions in this Act is that forward contracts should be allowed to be entered into only in accordance with the rules and bye-laws framed by the recognised associations and as approved by the Government.

For the purpose of regulating the futures trading and for exercising supervision under this Act, a Forward Markets Commission has been set up. The Forward Markets Commission, in 1955, recognised the East India Cotton Association for forward trading in cotton on a permanent basis throughout India. Subsequently, three more associations have been recognised—at Akola, Ujjain and Ahmedabad. These associations only deal with locally grown varieties of cotton.

The East India Cotton Association at Bombay provides all normal facilities required for futures and spot trading in cotton. The association maintains a clearing house for settlement of disputes in respect of hedge and delivery contracts and for execution of deliveries in such contracts. The membership of the association is broadly divided into three groups, viz. : (i) full membership ; (ii) associate membership ; and (iii) special associate membership. The first group is open to buyers, sellers and brokers and these members are entitled to elect members to the governing body. The associate members are those engaged in cotton trade and have a place of business in Bombay. This class of members have no vested interests in the association and they are neither entitled to trade in their own name nor to make use of clearing house. The special associate members, like the associate members, have no vested interests in the association, but they are entitled to trade in the ring in their own name and to use the clearing house. The affairs of the association are administered by a Board of Directors consisting of 26 members. Different committees, such as Standards Committee, Appeal Committee, Clearing House Committee, Daily Rates Committee, etc., are constituted by the trade under the bye-laws of the association.

The association, in its new Cotton Exchange Building, equipped with all modern equipments considered essential for an organised futures market, conducts futures trading in the ring (Plate II). The trading hours at present are from 12-30 P.M. to 4-30 P.M. on week days, except on Mondays when the hours are from 1-00 P.M. to 4-30 P.M. The prices are quoted in rupees per candy of 784 lbs.

The unit of contract is 50 bales of one and the same description of cotton. All hedge and delivery contracts are subject to the floor and ceiling prices fixed from time to time. The making, comparing and settling of bargains are covered by the bye-laws. The regulation of fluctuations in rates and prices is also covered by the bye-laws. Trading in new crop begins from the dates fixed by the Board with the previous approval of the Forward Markets Commission.

The Cotton Exchange at Bombay at present (1958-59) provides facilities both for hedging and trading in delivery contracts. Trading in delivery contracts on 'on call' basis was permitted in 1957-58 after a lapse of nearly two and half years. All descriptions of cotton tenderable under the hedge contract and/or included in the price notification issued by the Textile

Commissioner under the Cotton Control Order are tenderable against the delivery contracts.

For the purpose of hedging, there is a single hedge contract styled the Indian Cotton Contract with M.G. Fine Moglai Jarila 25/32" as basis. All varieties except the short staple ones are tenderable. The months of delivery are March, May and August.

Though the trading in delivery contracts has been regulated since 1957-58, trading in hedge contracts has been going on with, ofcourse, frequent suspensions and revisions of the contract. The question of providing a proper system of hedge contract which would provide adequate hedging facilities for the whole of Indian crop has been a subject of controversy since the formation of the East India Cotton Association.

CHAPTER VIII

STANDARDISATION

GENERAL

Classing of cotton on the basis of recognised standards is by far the most essential as it helps the cotton producer to obtain price commensurate with the quality of the produce grown and marketed by him. The science of classing of cotton is the outcome of the need for standardisation of different grades of cotton. Colour, lustre and brightness of the fibre, cleanliness, quality of ginning, etc., are factors which determine the grade of cotton. Staple is taken as the integrated expression of the fibre length and character.

Classing and grading of cotton in the U.S.A. is done in accordance with the United States Cotton Standards Act 1923. The Agricultural Marketing Services Division of the United States Department of Agriculture provides cotton classing service for the farmers as well as others. For rendering necessary services, the department has set up a number of cotton classing offices at suitable centres over the entire cotton belt. The technical supervision over the classing of cotton is exercised by a Board of Supervisory Cotton Examiners stationed at Memphis. Free classing service is provided under the Smith-Doxey Act for the farmers.

INDIAN COTTON CLASSIFICATION

In India, business in cotton is transacted mostly on the basis of samples which is a time-consuming process and leads to many disputes. Contracts in Bombay market or those by the textilemills are, however, entered into and settled on the basis of standards fixed by the East India Cotton Association Ltd., Bombay, mostly for purpose of futures trading. The East India Cotton Association through its Standards Committee prepares and maintains annually standard samples for the guidance of surveyors for the following grades : Extra Superfine, Superfine, Fine (Basis), Fully Good, Good to Fully Good (i.e., half a class of Fully Good) and Good. For staple, standards measuring 24/32", 25/32", 26/32", 27/32", 28/32", 29/32", 30/32" and 31/32" are also prepared and maintained.

GRADING UNDER AGMARK

As an aid to marketing of improved varieties of cotton in the country, grading of cotton is undertaken on voluntary basis in accordance with the Cotton Grading and Marking rules framed under the Agricultural Produce

(Grading and Marking) Act, 1937. Grading of cotton as now done is mainly based on the varietal purity and is linked with the seed multiplication schemes implemented in various States. This has been done with a view to helping the rapid spread of improved varieties and enabling the growers of such varieties to obtain a premium for the superior cotton. Agmark grades have been prescribed for Vijalpa, Digvijay and Kalyan varieties grown in Gujarat; for Virnar variety grown in Khandesh region of Maharashtra State; and for some important Punjab-American varieties grown in the Punjab.

Under each variety, two grades of cotton, viz., 'Agmark Certified Pedigreed' (red label) and 'Agmark Certified' (black label) have been prescribed. The lint derived from the cotton crop raised from the selfed seed on a Government farm or on the fields of registered seed growers and which satisfies the minimum standard of purity of 98 per cent—both in the field and at the ginning stage—is eligible for the 'Agmark Certified Pedigreed' grade. The crop raised from the certified cotton seed supplied by the department for multiplication on the fields of growers and which satisfies the minimum standard of purity of 97 per cent—both in field as well as at ginning—is eligible for 'Agmark Certified' grade. Appropriate grade labels bearing the 'Agmark' insignia are affixed to the bales.

The agmarking of cotton is thus confined to the produce obtained from the reserved seed multiplication areas which are directly supervised by the staff of the agricultural departments. Before determining the purity of the standing crop in the field, the 'off type' plants are rogued. The *kapas* that is picked from the inspected and certified fields is stored separately in the ginneries and subsequently ginned and pressed separately under the supervision of the Government inspectors, care being taken to see that this does not get mixed with other produce.

The annual progress of cotton agmarking may be seen from the figures indicated in Table 11.

TABLE 11. TOTAL QUANTITIES AND VALUE OF COTTON AGMARKED DURING 1953-54 TO 1958-59

Year	Quantity graded (bales)	Percentage of quantity graded to total Indian production	Value (thousand rupees)
1953-54	50,316	1.3	21,900
1954-55	1,55,912	3.7	48,749
1955-56	2,52,941	6.3	1,19,471
1956-57	2,86,036	6.0	1,38,521
1957-58	1,88,371	4.0	84,434
1958-59	7,04,646	15.0	3,26,106

Grading of cotton under Agmark on purity basis has helped the growers in getting better prices for their cotton. It is reported that the bales of cotton bearing Agmark labels fetch a premium varying between Rs. 10 to Rs. 20 per candy of lint. Besides the higher price obtained by the growers, this scheme has also helped in maintaining varietal purity in the specified areas and in the quick spread of the improved varieties.

In Madras State, a system of classing of *kapas* and lint of Karunganni and Cambodia cottons into different types, on the basis of classification introduced by the Madura Mills Ltd., is extensively adopted. In the regulated markets at Hubli and Gadag, the co-operative societies have fixed certain standards for *kapas* of Laxmi and Jayadhar varieties on the basis of ginning percentage and on the basis of which the members' produce is graded and auctioned.

Though some standards have been prescribed by the East India Cotton Association, these have only helped in maintaining type samples for purposes of settling disputes referred to that association. The system of sale by inspection continues to predominate. The Agmark grades do not take into consideration quality factors, such as colour, lustre, leaf and also staple length. For orderly marketing of cotton and for increasing the efficiency of the marketing system, it is imperative that some steps be taken to permit the sale of cotton on the basis of some recognised grades and by providing facilities in the interior markets for assessment of quality.

CONTRACT TERMS

Transactions of cotton between the buyers and sellers in the villages are purely verbal and no written agreements are in vogue. Regulated markets take cognizance of the transactions made in these markets by way of entries in their records and no contract forms are in use here also. In the case of sale of lint between the merchants in secondary markets, the transactions being mostly between the local cotton merchants and the upcountry firms or textile mills, specific contract forms are made use of. These contract forms besides specifying the contracting parties, also specify quality, quantity, price, place, and time of delivery. Generally a dispute clause is also stipulated.

At Bombay, which is the principal market, purchases are made on the basis of contract terms prescribed by the East India Cotton Association. In Surat and Ahmedabad, the contract forms used in the sale of full-pressed bales are prescribed by the local Cotton Merchants' Associations. In the centres of mills, the sales are made on sample basis, the terms and conditions of the contracts being prescribed by the East India Cotton Association.

CHAPTER IX

PRICES

Prior to the Second World War, prices of cotton, all the world over, were influenced by two important international cotton markets, viz., Liverpool and New York, and the futures prices of the day in these markets were an index for cotton prices in India. During the Second World War, the international trade in cotton was restricted and supply and prices of cotton were regulated and controlled in many countries. Since the war, public purchase is in operation in the United Kingdom. The international trade is now much affected by currency and trade regulations and by bilateral and barter agreements entered into by different countries. The changed conditions have resulted in a persistent disparity between the prices of cotton at the important international markets. Though to some extent price policies in the U.S.A. do affect the prices of other growths of cotton entering international trade, it is difficult to say that the cotton prices in different countries of the world move parallel with the American cotton prices. The Indian cotton prices at present stand by themselves and, broadly speaking, they do not vary with the prices of American cotton, but are governed by the demand and supply position in the country and vary within the floor and ceiling prices fixed by the Government.

FACTORS AFFECTING COTTON PRICES

The important factor that determines the price of cotton in any market is the relative position of supply and demand. The prices of different varieties of cotton, in general, vary according to their staple, grade and spinning qualities. The prices of *kapas* in the upcountry markets, besides varietal characteristics and quality factors, also vary according to the percentage of ginning outturn. The prices of cotton in the Bombay market—the premier cotton market in India—are mainly governed by the demand and supply position in the country, subject to the floors and ceilings prescribed by the Government of India. The Daily Rates Committee of the East India Cotton Association fixes prices for the hedge contract as well as for ready cotton. These prices are taken as the prevailing prices of the day. Futures prices have a direct bearing on ready prices as many merchants link the price of their spot transaction with that of the futures. Though the futures prices provide a reliable guide to the traders' operating in spot market, it is erroneous to suppose that these determine the spot prices, particularly under restricted conditions of contracts. Apart from the above factors, which determine

the general level of cotton prices, there are other factors, such as operation of bulls, hedge pressure, political disturbances, rumours about levy of taxes or State control, etc., which affect the cotton prices and cause short-duration variations.

While making purchases in the secondary markets, the merchants, before quoting, take into consideration the closing rate on the previous day at Bombay for both spot and hedge contracts and the local conditions relating to supply and demand. The prevailing rates of cotton seed and the processing and other charges are also taken into consideration. In the primary markets, the price of cotton ruling in the nearby secondary market forms the basis of price quotation. Prices are quoted after making due allowance for transport, market expenses and other sundry charges.

A comparison of prices of important varieties of cotton in different markets shows that a rise or fall in the market price at Bombay is not always correspondingly reflected in the price in the secondary market. This is explained by the fact that the terminal market price is not the sole determining factor for price fixation in the secondary market. There are many other factors, such as local demand, cotton seed price, etc., involved in the actual formation of price. With the increasing tendency of the textile mills to make direct purchases in producing areas, the prices of *kapas* and lint in the secondary markets are determined more by the local supply and demand factors. These are, therefore, many a times, not in parity with the Bombay prices. Taking an overall trend of general level of prices, it is observed that so far as major price movements are concerned, the prices in the secondary markets more or less move in sympathy with those in the Bombay market.

VARIATIONS OVER SPACE AND TIME

A study of the average monthly prices of *kapas* and lint ruling in some important cotton markets has revealed that the prices of both *kapas* and lint of the same variety at a particular time are not generally the same and differ in different markets. The prices of the same variety in various markets located in the same tract, however, generally, move in sympathy, but the same is not true for the markets located in different tracts. There are a number of factors responsible for the difference in prices from market to market. This is mainly attributed to differences that exist in the quality of the same variety grown in different areas. Varying transport charges, depending upon the distance from the consuming market, also account for the variation in prices in different markets.

Cotton prices, like prices of other agricultural commodities, are subject to considerable seasonal influence. Under normal conditions, the prices of agricultural produce are generally lower immediately after harvest when there are heavy arrivals in the markets and they rise with the advance of the

season. Under controlled conditions, the normal factors influencing the prices generally do not operate, particularly in case of cotton where prices of lint are subject to floors and ceilings, without any restrictions on the prices of *kapas*. A study of the monthly average prices of *kapas* and their deviation from their annual mean has shown that fluctuations in the monthly average prices of *kapas* in the secondary markets were not violent during the triennium ending 1957-58. It is observed from the study of monthly average spot prices of lint of Fine Jarila ruling in Bombay during the years 1952-53 to 1958-59, that the fluctuations in the monthly prices have been rather erratic.

RELATIONSHIP BETWEEN PRICES OF KAPAS, LINT AND COTTON SEED

The *kapas*, on ginning, yields lint (about one-third) and cotton seed (about two-thirds) of its weight. The prices of *kapas* in any market, therefore, are dependent upon the ruling prices of lint and cotton seed. A comparative study of the prices of *kapas*, lint and cotton seed, ruling during the three years, viz., 1955-56 to 1957-58, and their relationship between each other was carried out in respect of three markets, viz., Abohar (Punjab-American 320F variety); Adoni (Laxmi variety) and Raichur (Westerns variety). It was generally observed that the prices of lint in all the three markets showed wide fluctuations in their relationship with the prices of *kapas* and ranged between 232.6 and 269.4 per cent of the average price of *kapas* at Abohar; between 225.7 and 238.3 per cent of the average price of *kapas* at Adoni; and between 255.4 and 271.4 per cent of the average price of *kapas* at Raichur. The prices of seed more or less maintained the relationship within the narrow limits and ranged between 33.7 and 35.5 per cent of *kapas* at Abohar; between 21.5 and 25.2 per cent at Adoni; and between 35.1 and 42.1 per cent at Raichur.

FUTURES PRICES

With the introduction of price controls on cotton in 1943, trading in futures became subject to floors and ceilings fixed by the Government. The market functioned under the regulation of the Government of India until 18th January, 1948, when cotton was decontrolled. The sharp rise in the prices of cotton led to the re-imposition of control from 1st September, 1948 and trading was suspended frequently during 1948-49 and almost for whole of the season 1949-50, when the prices approached or touched the prescribed ceilings. For the two seasons, 1950-51 and 1951-52, trading remained prohibited. In the subsequent three seasons, the futures prices ruled well within the prescribed limits for trading but in 1955-56, the prices in futures market again approached the ceilings. The prices in spot market that were ruling consistently above the futures prices, were pushed up high at or near the ceilings and this led to the suspension of trading in futures in January 1956. With a view to ensuring smooth working of the futures market, the Indian Cotton

AVERAGE MONTHLY SPOT AND FUTURES PRICES OF COTTON IN BOMBAY
BASIS-JARILA FINE 25/32'

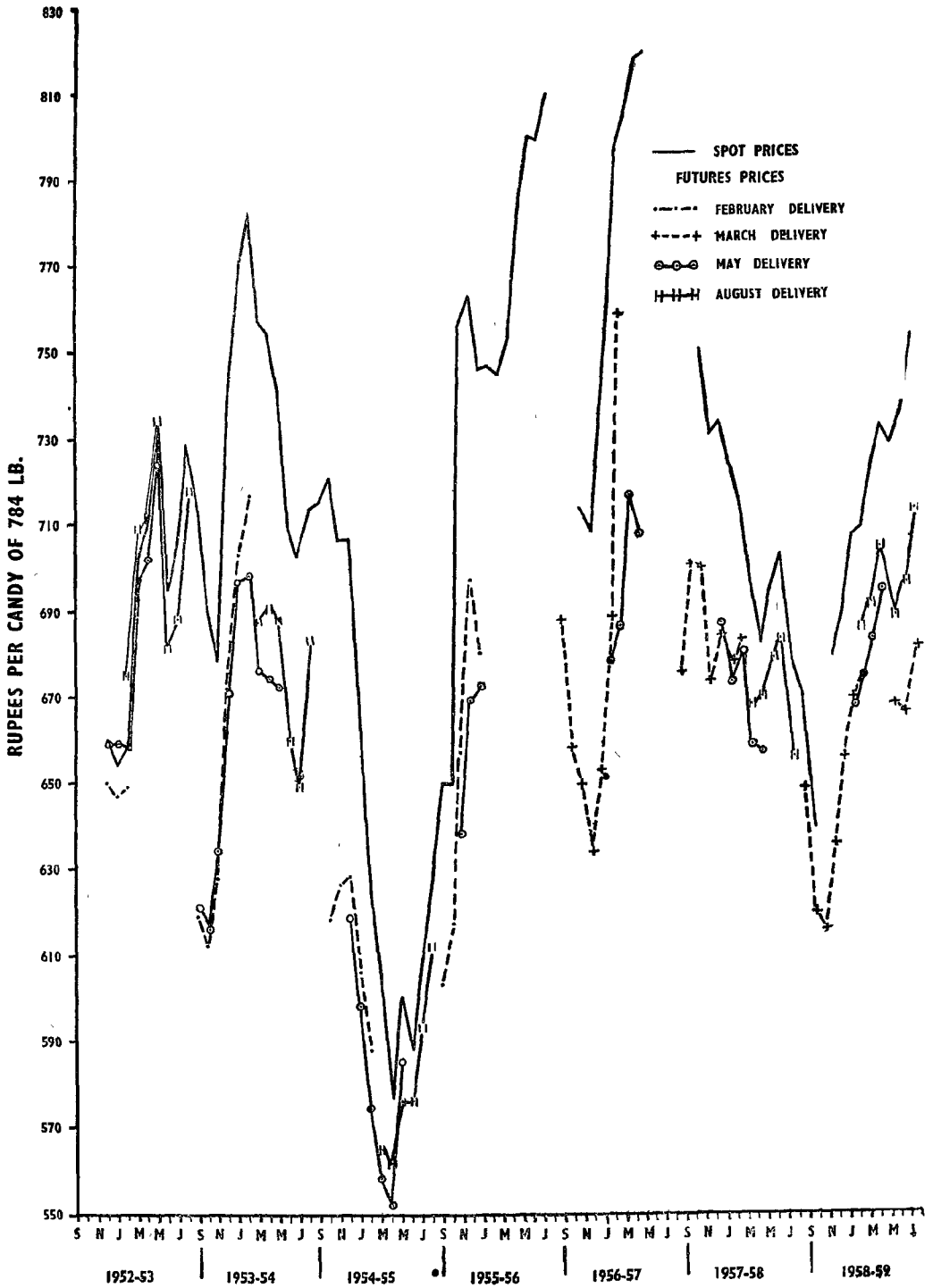


Fig. 4. Relationship Between Spot and Futures Prices of Cotton in Bombay

Contract was revised in June 1956, and in place of the single hedge contract with Fine M.G. Jarila 26/32" as basis, two hedge contracts were established for the season 1956-57, one with Fine M.G. Jarila 25/32" as basis and the other with Fine M.G. Vijay 27/32" as basis. The rise in prices beyond the limits set for futures trading in April-May, 1957; led to the closing down of these contracts before the date of maturity in that season. The enforcing of two hedge contracts was thus not successful and, as a result, a single hedge contract with Fine M.G. Moglai Jarila 25/32" as basis was put into operation for the season 1957-58. The prices ruled easy during that season.

Generally speaking, the spot and futures prices of cotton at Bombay move in sympathy with each other; the two prices normally move up and down together. Since 1952, however, there has been a reversal and spot prices are always over the futures prices instead of the normal premium of futures price over the spot; there has also been a wide divergence between the two prices (Fig. 4).

No records of the quantities traded against different contracts are kept as the transactions entered into by the members at the trading ring of the East India Cotton Association, Bombay, are not registered with the association. An examination of the quantities delivered against different contracts traded during the seasons 1952-53 and 1957-58 has shown that during the seasons 1952-53 to 1954-55 the quantities actually delivered were the largest in the case of August delivery. Thereafter, the actual deliveries have not been very appreciable.

The East India Cotton Association, through whom most of the actual sales and deliveries take place, fixes under its bye-law 55, on or about the 25th of the month preceding the commencement of each delivery period, the tendering differences between the basic cottons of different varieties tenderable against the hedge contract as well as 'on' and 'off' allowances for the staples in each case appropriate to the crop tendered. The premia or discounts for descriptions of cotton tenderable other than basic cotton are fixed on the basis of the difference between the spot price of basic cotton and the spot rate of the description for which the premium or discount is to be fixed. The spot price of the same description of cotton in the interior market is also taken into account.

COTTON POLICY AND PRICE CONTROL

Control on the prices and distribution of cotton owes its origin to the situation created due to the entry of Japan into the Second World War in the year 1942-43. With a view to stopping speculation and preventing the rise in cotton prices, the Government of India issued the Cotton (Forward Contracts and Options Prohibition) Order on 1st May, 1943. Under this order, floors and ceilings were prescribed and mills were advised not to pay more than the

prices fixed. In December 1945, the Indian Cotton Control Order was issued under the Defence of India Rules and floor and ceiling prices fixed from year to year thereunder. After the expiry of the Defence of India Rules, the requisite powers were taken by the Government of India under the Essential Supplies (Temporary Powers) Act, 1946. In April 1955, this Act was replaced by the Essential Commodities Act and is in force since then. Under Section 3 of this Act, the Government of India have issued Cotton Control Order 1955 and this empowers the Government to fix the floor and ceiling prices for different varieties of cotton every year. The object of fixing the floors and ceilings by the Government is that while the floors should ensure a remunerative price to the cotton growers, the ceilings should act as a deterrent to the rising trend of prices. Thus, the floors are intended to safeguard the grower and the ceilings to protect the consumer and the industrialist. The floor and the ceiling prices are, at present, fixed for nearly 26 varieties representing almost all the growths of cotton in India. With a view to encouraging the production of superior cottons certain improved varieties, such as M.C.U. 1 and M.C.U. 2, Indo-American strains 170-Co.2 and 134-Co.2-M, M.A. 5, Sea Island 'Andrews', etc., of staple length 1" and above are exempted from the applicability of the price control. For the short staple varieties (below a staple length of $\frac{3}{4}$ ") the floor prices are not fixed. Along with the floor and ceiling prices, 'on' and 'off' allowances for 'class' and 'staple' above and below the basic 'class' and 'staple' are also fixed every year.

CHAPTER X

HANDLING AND TRANSPORTATION

HANDLING

Handling^e by manual labour, save for rare instances where mechanical or pneumatic equipments are made use of, is an inevitable factor in the marketing of cotton. Handling in villages includes picking of the produce, placing into containers for transporting to the growers' houses and storing. All these are attended to by the growers themselves and their associates. Handling, therefore, accounts for no expenditure at the village level or in the primary markets. When the produce is sold in villages to cotton merchants, cotton firms, ginning and pressing factories and the textile mills, the services of the village merchants and the local labourers are utilised for the various items of handling, like weighing, packing and loading into the carts or motor lorries. The buyers incur all these expenses, which vary from 13 nP. (in Gujarat) to 28 nP. (in Madras) per standard maund in the various parts of the country.

In the secondary markets *hamals* attend to all the handling operations. The *hamals* may be either employees of the commission agents or ginning and pressing factories or private parties. Their charges in the secondary markets vary from 4 nP. to 12 nP. per standard maund in different States. Instances where the charges of handling are paid in kind are also found. In the ginning and pressing factories, cleaning forms an important item of handling and the charges vary from Rs. 0.56 to Rs. 2.50 for *kapas* equivalent to a candy of lint.

In the terminal market of Bombay, there is a specialised class of people, called *muccadams*, who *inter alia* look after all the handling operations.

CONTAINERS

In all the States, from villages to secondary markets, *kapas* is usually carried packed in some form of containers. In Maharashtra, Gujarat, Madhya Pradesh, the Punjab and Rajasthan, it is also carried loose, in carts. Different types of containers locally known by several names, such as *borahs*, *pals*, *docras*, *bardans*, etc., are in use. The capacity of the containers varies from about 60 to 1,400 lbs. Usually, the growers themselves have to provide for the packing material, but in the States of Andhra Pradesh and Mysore the commission agents also provide the packing materials to the growers on hire.

TRANSPORTATION

Wherever small quantities of *kapas* or lint are moved over short distances in villages and in ginning and pressing factories they are generally carried in head-loads. On an average, head-load would be about one standard maund of the produce. For movement of produce from the villages to wholesale markets and within the towns and cities, bullock carts are used. Though very slow they have some definite advantages. The capacity of a bullock cart varies from 10 to 20 standard maunds, depending upon its size. On an average, about 15 standard maunds can be carried in a bullock cart. In the Punjab special types of carts having a capacity of 40 to 50 standard maunds when drawn by bullocks and about 20 maunds when drawn by camels are in use. Apart from these, small carts drawn by horses and having a capacity of seven to eight standard maunds are also used for carrying *kapas*. Hire for the carts varies from two to eight naye Paise per standard maund per mile.

Pack animals like camels and donkeys are also used as means of transport in parts of the Punjab, Rajasthan and Uttar Pradesh, in which case the transport charges work out to four to five naye Paise per standard maund per mile.

For transport of full-pressed bales from upcountry markets to Bombay and other consuming centres, there are various means in use. Steamers are utilised in some markets of Gujarat and Madras States. The capacity of steamers varies from 2,000 to 5,000 bales. Country boats are also used in certain centres in Gujarat State for transport of cotton to terminal market of Bombay.

Railways form an important mode of transport for moving full-pressed bales from pressing centres to terminal markets or consuming centres and where the distance to be covered is more than 150 to 200 miles. The loading capacity of a wagon varies from 40 to 100 bales or 20 to 30 *borahs*, depending upon the size of wagon—meter gauge or broad gauge. The packing conditions for goods to be booked by railways are defined separately for full-pressed, half-pressed and loose cotton, and the classes for purpose of railway freight fixed.

The freight rates for smalls as well as wagon-loads are charged on the basis of 'Telescopic Rate System'. Special station to station rates are also fixed for movement between certain specific points. Siding charges at the rates applicable per wagon are levied in addition to the station to station rates when the goods are booked for the sidings of any factory or a textile mill. The goods are booked at railway risk. In recent years, there has been a decline in the use of railways as a means of transport owing to the delays in the allotment of wagons and in actual transport.

Motor lorries are now extensively used for the transport of a major portion

of cotton. Motor trucks are also, to a certain extent, used for transportation of the produce from the villages to the secondary markets. The capacity of a lorry is 30 to 40 bales. On an average, the transport charges work out to two to three naye Paise per standard maund per mile. For short distances, transport of cotton by motor lorries is cheaper than by rail. In recent years, transport by lorries is assuming greater importance in view of their being quicker and cheaper and the goods being delivered to the buyers at their premises, thereby saving a lot of incidental expenses.

Usually, the transport companies do not undertake the responsibility of transporting the goods at their risk. The owners of the produce insure their produce to cover the risks of fire and civil commotion. Sometimes the produce is not insured at all.

The total charges for handling and transportation of cotton from the villages to the terminal market at Bombay, on an average, have been estimated as Rs. 42.25 per candy (784 lbs.) of lint.

CHAPTER XI

CONSERVATION

There are no special godowns for storage of cotton in villages and almost all the growers or commission agents utilise their dwelling houses for this purpose. The produce is stored mostly in the form of *kapas* in loose heaps. Although some precautions are taken by the growers or commission agents to keep the portion of the house or shop, used for storage, well protected, the conditions of storage in villages are not quite ideal. In some places, containers, like big bins, made out of *tur* stalks, bamboos or palm leaves, bamboo receptacles, mud pots and gunny *borahs* are also found in use. The period of storage in a village is very short, not exceeding three to four weeks, as an average grower cannot hold his produce mainly due to his weak financial position and unsatisfactory storage conditions. As a result, over 80 per cent of the produce leaves cultivator's hands within three to four months from the commencement of the harvest.

In all the wholesale markets, there are *pacca* godowns, located mainly in the premises of the ginning and pressing factories. The lint is stored in these godowns till it is despatched to the consuming centres. In South India, in addition to the godowns in ginning and pressing factories, there are godowns located in market centres or market yards which are used for storing the cotton for short periods before sale. In the northern States, the *kapas* is stored mostly in open compounds till it is ginned and pressed.

In all the terminal markets, most of the godowns for storing cotton are *pacca* masonry structures with paved floors. At Bombay, in the cotton market at Sewri, there are 17 well-equipped, rainproof and fireproof, concrete godowns for cotton, with storage capacity of about eight lakh bales. Besides these, there are a large number of godowns in the city belonging to the textile mills and private concerns, having storage capacities of six and three lakh bales, respectively. The textile mills all over the country have invariably their own godowns which are *pacca* and well ventilated. The bulk of the carryover from one year's crop to the next season is usually stored in godowns at the principal trading centres or with the textile mills. The period of storage of lint in the terminal markets and the textile mills is generally not over one year.

Cotton, if not properly protected during storage at various stages, is apt to deteriorate in grade and colour, the extent of deterioration depending upon a number of factors, e.g., the condition and period of storage, the atmospheric conditions, ventilation and incidence of pests, etc., in godowns. In villages and secondary markets, cotton is stored only for short periods and, as

such, under normal conditions there is no deterioration in quality. However, if the storage conditions are not congenial, some deterioration in colour and loss in quantity occurs. In textile mills, where the period of storage is usually longer, it is reported that lint suffers a loss in weight. Although no exact data are available on this, it is estimated to vary from half to one per cent.

The growers and village merchants usually store cotton in their own houses, either loose or in containers which are prepared or secured at a very little cost. These containers, with minor repairs, give service for several years. Under these conditions, the cost of storing in villages is nominal. In northern States, as cotton is kept mostly in open compounds of ginning and pressing factories till it is despatched, the cost of storage is either nil or negligible. In the States of Andhra Pradesh, Madras and Mysore, the commission agents and co-operatives charge godown rent till the produce is disposed of, and it ranges between 6 nP. and 50 nP. per maund of *kapas* and between 9 nP. and Re. 1 per maund of lint for a period not exceeding one month. The charges vary from State to State and market to market, depending upon the period of storage. In some cases these include cost of insurance as well. In the off-season, however, the ginning factories in Gujarat, Maharashtra, Madhya Pradesh, the Punjab and Rajasthan States charge godown rent varying from 6 nP. to 20 nP. per bale per month. In the terminal market of Bombay, storage charges for full-pressed bales of Indian cotton, when stored in open *jathas*, are 37 nP. per bale and that for foreign cotton are 75 nP. to Re. 1 per bale.

The production of cotton being seasonal, it has to be stored and made available to the consumers and the textile mills throughout the year. The importance of warehousing in the marketing of cotton as in other agricultural commodities needs no emphasis. The All-India Rural Credit Survey Committee appointed by the Reserve Bank of India in their report published in 1955 considered the provision of warehousing facilities for agricultural produce as one of the several complementary measures to be adopted for developing rural credit facilities and thus strengthening the position of bargaining of the farmer. In pursuance of the recommendations made by this Committee, the Agricultural Produce (Development and Warehousing) Corporations Act was passed by the Parliament in June 1956. Under this Act, the Central and the State Warehousing Corporations have been set up and warehouses are being established at various centres in the country. Till October 1960, 30 and 170 warehouses were set up by the Central and the State Warehousing Corporations, respectively. In almost all the cotton producing States warehouses are functioning at the important market centres. These warehouses, besides providing scientific and safe storage, have facilitated regular flow of goods to the consumers and created an institution for obtaining credit. Several scheduled banks have now extended credit facilities. Against the pledge of cotton kept in these warehouses the depositor can obtain advances from the banks at a reasonable rate of interest.

The storage charges recovered by the Central Warehousing Corporation for cotton are as under:

Item	Storage charges	
	Per month (nP.)	Per week •(nP.)
Lint (compressed)	75	19
Lint (loose, packed in <i>docras</i> or other containers, for 3½ standard maunds*)	45	12
Cotton seed bag	15	4

* 15 nP. for every additional maund.

Cotton deposited is broadly classified as long, medium or short staple cotton. The stocks are insured against fire and theft and also against flood and civil commotion where considered necessary.

MARKET FINANCE

It is a common practice with the growers in different States to take loans for carrying out their agricultural operations. Village merchants (*banias*), *sahukars* (money lenders), commission agents and cotton merchants generally form a major source of finance in most of the cotton growing States; about 98 per cent in Rajasthan, over 80 per cent in Andhra Pradesh and Madras, and over 60 per cent in Mysore. The rates of interest charged by them vary from 9 to 25 per cent. Finance from co-operative credit societies and other Government agencies is also available at easier rates of interest ranging from 6½ to 9 per cent. It was estimated that the co-operative institutions supplied five per cent in Andhra Pradesh, eight per cent in Madras and two per cent in Rajasthan, of the total borrowings by the cultivator. The borrowings from co-operatives were substantial in Gujarat (59 per cent), the Punjab (42 per cent), Maharashtra (38 per cent) and Mysore (37 per cent). Though the co-operative credit facilities have expanded and funds are more increasingly available at present than in the past the available credit is either inadequate to meet the full demand of the borrowers or, due to procedural formalities, is received very late in the season.

The survey has also revealed that 70 to 90 per cent of the growers in various States need production loans just before the commencement of the season. A majority of the growers, due to lack of finance and weak holding capacity, are compelled to sell their cotton immediately after picking.

The distribution of cotton from the assembling markets to the textile mills or for export abroad is financed at various stages by *adattias*, cotton merchants, bankers and *shroffs* (indigenous bankers). Cotton merchants and commission agents invariably advance money to village merchants against future purchases and charge no interest for such advances. Similarly, the *pacca adattias* also provide short-term credit facilities to the cotton merchants. In addition to their cotton business they also do banking business. Commercial banks are the most important agencies for providing necessary finance to the cotton merchants, textile mills and cotton firms against the pledge of the goods at rates of interest ranging from five to seven per cent or through over-drafts. The *shroffs* who have been financing the distribution of agricultural produce from times immemorial, form an important financing agency in the internal trade. The instrument with which the indigenous banker works is the *hundi* (bill of exchange). The *hundi* also serves as a draft for transmitting money to other centres.

CHAPTER XIII

MARKET INTELLIGENCE

With the fast development of communication system, market intelligence service has become a necessary component of the modern marketing system as information on supply and demand position and the prevailing market prices is as much needed by the producers as by the traders. The cotton market intelligence is comparatively better organised in the country than that relating to other agricultural commodities. Statistics relating to acreage and production and data relating to prices, stocks and other market information are collected and published in respect of cotton by both official as well as non-official agencies.

The Directorate of Economics and Statistics of the Union Ministry of Food and Agriculture issues annually five All-India Cotton Forecasts on prescribed dates; the first, which gives preliminary estimates of acreage only, is issued in August, immediately after the *kharif* crop is sown and the last forecast, giving the final figures of acreage and production, is issued in May of the following year. Estimates of crop production are also made by the non-official agencies, generally the big cotton firms, for their own guidance and these are commonly known as Trade Estimates. It is generally considered that the area figures as reported in the official forecasts are more or less accurately determined, but there is always an appreciably wide discrepancy between the official and non-official production estimates. The official production figures are observed to be generally lower than the actual crop. The Indian Central Cotton Committee also prepares estimates of actual production after the crop has more or less moved to the mills or the terminal markets. The method of estimation adopted by the Indian Central Cotton Committee takes into consideration the mill consumption, the net exports, the extra-factory consumption, and the variation in stocks. The estimates of actual production as determined by the Indian Central Cotton Committee are generally higher than those published in the final forecast.

The persistent disparity between the official and the trade estimates has been under discussion for quite a long time. With a view, therefore, to improving the accuracy of the official forecasts, crop estimation by random sampling is being recommended and has been adopted in some States.

According to the Cotton Ginning and Pressing Factories Act, 1925, every cotton ginning and pressing factory is required to furnish regularly, to the State authorities concerned, periodical reports showing the cotton

ginned and pressed. These reports are compiled and published in a consolidated statement in the State Gazette.

The sources of current market information in the country are the Government publications, daily papers and radio broadcasts. The cotton traders keep themselves well informed about the market conditions, but this is not so in the case of growers. The growers depend very largely on reports from their neighbours who have been to the market or from itinerant merchants or the village merchants. These merchants depend in their turn on the traders in the town markets, who are well informed about the market conditions prevailing in different parts of the country. Majority of the growers are very much in dark about the fluctuations in the market prices and they rarely ascertain the prices before taking the produce to the market. Due to their ignorance they are unable to bargain and judge if the price offered is fair and adequate. They have, therefore, to part with their produce at any price that is offered because once the produce is taken to the market, no grower would like to bring it back even if the prices are unfavourable.

During the Second Five-Year Plan the Directorate of Economics and Statistics implemented an integrated scheme with twin object of effecting: (i) immediate improvement in market news service; and (ii) long-term improvement in market intelligence work. Under the scheme, the existing market news service is being improved by:

1. Rationalising and increasing the number of markets and commodities in respect of which the different regional stations of the All-India Radio are broadcasting market information.
2. Expanding the contents of information broadcast by the regional All-India Radio stations so as to include information not only on prices but also on arrivals, stocks, despatches, etc.
3. Making arrangements so that the markets covered by a regional station supply the required information in time so as to enable broadcasting of day's information the same evening.
4. Making arrangements so that the market information to be disseminated is furnished to the radio station by the technical agency, viz., the State department concerned.
5. Broadcasting a weekly review of market conditions as reported by the State authority concerned through the regional radio station.

WEIGHTS AND MEASURES AND UNITS OF SALE

With a view to introducing uniform system of weights, the Government of India enacted the Standards of Weight Act in 1939. Under this Act, two systems of weights are prescribed, viz.: (i) based on the Indian system, i.e., tola, seer, maund series; and (ii) avoirdupois system, i.e., pound, hundred-weight series. The enforcement of the standards was, however, the State's responsibility. Accordingly, several States passed and enforced the Weights and Measures Act and standardised the weights and measures within their boundaries. Under these Acts, all the traders in the villages as well as in the secondary markets are required to use standard weights and proper scales and get them checked and stamped by the State authorities, periodically. In the regulated market areas, the staff of the market committee also have been authorised to undertake stamping and checking of weights.

Though, in many States, Weights and Measures Act has been enforced, during the survey a wide diversity in the weights and measures used in different parts of the country was observed. The scales used in cotton trade are hand-scale, spring balance, iron beam scale, portable platform balance and weigh-bridge. The hand-scales and the spring balances are usually found in villages, while the other scales are used in secondary and terminal markets.

The weights commonly used conform to no particular standard and the scales used are defective and deceptive. This is particularly so in villages. Variations exist in the Indian series of weights and a local maund may be anything from 28 lbs. to 82-2/7 lbs. During the survey, many malpractices, such as weighing of lots on small scales, manipulation of hand-scales, use of broken and unstamped weights, etc., were noticed. Such a chaotic condition easily tends itself to dishonest practices and exploitation of the ignorant and illiterate producer-sellers.

INTRODUCTION OF METRIC SYSTEM OF WEIGHT

After Independence of the country the Government seriously considered the question of adoption of metric system of weights and measures, as the same was considered convenient and essential for effecting uniformity in the country. The Indian Standards Institution prepared a report on the subject and made several suggestions in regard to gradual introduction of the metric system. The report was considered by the Planning Commission who recognising the urgent need for reform accepted the report and recommended its introduction in the

country. This was to be preceded by introduction of decimal coinage system. To give it a legal sanction, the Act known as the Standardisation of Weights and Measures Act was passed by the Parliament on December 28, 1956. The complementary reform in coinage, viz., introduction of decimal coinage, was enforced from April 1, 1957; and the metric system of weights and measures introduced in specified spheres under the above Act with effect from October 1, 1958. The enforcement of weights and measures as per Constitution is within the exclusive jurisdiction of the States and steps have been taken by them to enact and enforce necessary State legislations. Use of metric system has been made obligatory in some regions, with effect from the 1st October, 1960, and complete change over is to be effected from April 1962. The railways have already adopted metric system.

CHAPTER XV

LEGISLATION

The Indian Cotton Committee, which was appointed in 1917, was very much concerned over the malpractices in cotton, as these caused a great economic loss to the country. The Committee in its report in 1919 recommended some remedial measures which were later taken up by the Indian Central Cotton Committee, Bombay, and it is mainly through the efforts of the latter, that various cotton legislations for the maintenance of purity and improvement of marketing of cotton have been passed by the Central and the State Governments.

The important legislations which affect cotton are:

1. Cotton Transport Act, 1923.
2. Ginning and Pressing Factories Act, 1925 (described under Chapter VI—page 20).
3. Forward Contracts (Regulation) Act, 1952 (described under Chapter VII—page 42).
4. Agricultural Produce (Grading and Marking) Act, 1937 (described under Chapter VIII—pages 45-46).
5. State Cotton Control Acts.
6. State Agricultural Produce Markets Act (described under Chapter VII—page 38).
7. Cotton Statistics Act.

COTTON TRANSPORT ACT, 1923

The first piece of legislation to be enacted was the Cotton Transport Act, 1923. With a view to maintaining the purity of improved superior varieties of cotton, this Act empowers the State Governments to prohibit import of certain varieties of cotton into specified zones. Under this Act, the respective State Governments have notified protected areas in which imports of cotton, except under a licence, are prohibited. The Act is in force in the States of Andhra Pradesh, Madras, Mysore, Maharashtra, Gujarat and Madhya Pradesh. The Act is administered by the State Departments of Agriculture.

STATE COTTON CONTROL ACTS

The Cotton Transport and the Cotton Ginning and Pressing Factories Acts help in prevention of mixing of foreign substances and admixture of different varieties of cotton. For prevention of mixtures in the fields and premises

other than cotton ginning and pressing factories, supplementary legislation was found necessary. Some cotton growing States have passed Cotton Control Acts which promote cultivation of only the specified varieties in specified areas and prohibit the growing, possession or trading in other varieties in those areas. The Act is in operation in North Gujarat, Narbāda-Sabarmati zones of Gujarat State, Khandesh, parts of Marathwada and Vidarbha regions of Maharashtra State; Kumpta-Dharwar, Bijapur and Bagalkot areas of Mysore State; and parts of Adilabad and Nizamabad districts of Andhra Pradesh.

In the Punjab, the same objective is achieved by the Punjab Improved Seed and Seedlings Act, which requires compulsory planting of pure seeds and seedlings of improved varieties of crops approved by the State Department of Agriculture.

To fulfill the conditions laid down under the Cotton Control Order, the Government of Madras have also issued the Superior Cotton Production and Certification Order. This enables the Government to grant certificates of purity for the produce of certain improved varieties of cotton and help the growers in obtaining the full benefit of increased prices as notified by the Textile Commissioner, Bombay.

COTTON STATISTICS ACT

This is a State Act. It provides for collection of statistics of stocks of cotton held by the trade at the close of the cotton season. This Act has been enforced in the States of Maharashtra, Gujarat, Madhya Pradesh, the Punjab and Uttar Pradesh. With effect from 10th November, 1956, the Central Collection of Statistics Act, 1953, has been enforced. As this provides for delegation of powers to the States, the remaining States, therefore, have not felt any need for a separate legislation in this regard.

There are other miscellaneous Acts which also affect cotton and the chief among these are:

1. Destructive Insect and Pests Act, 1914.
2. Madras Agricultural Pests and Diseases Act, 1919.
3. Essential Commodities Act, 1955.

CHAPTER XVI
COTTON SEED

SOWING

During the year 1958-59, the total production of lint was estimated to be 4,929 thousand bales of 392 lbs. each. Taking the ratio of seed to lint as 2:1, the total production of seed during this year comes to about 47 million maunds (1,759 thousand metric tons). Out of this 4.5 million maunds or 9.6 per cent was used for sowing purposes. For industrial purposes, the demand has been varying, but taking the production of cotton seed oil roughly as 25,000 tons per annum, in 1956-57 the quantity of cotton seed utilised by the cotton seed oil industry is estimated to be about 50 lakh maunds or 10.6 per cent of the production. The balance of 80 per cent of the cotton seed production is mainly used for cattle feeding as such.

The sources of supply of seed for sowing purposes are growers, seed depots maintained by the Departments of Agriculture, approved agents and licensees of the departments, co-operative sale societies, ginneries and merchants in the villages. The survey conducted revealed that generally the ginneries and the Departments of Agriculture formed the important sources of seed supply. The role played by the co-operatives, except in Gujarat, was insignificant. The share of each of the agencies varies in different States.

COTTON SEED OIL INDUSTRY

The cotton seed besides its use for sowing, being rich in oil, is also of considerable industrial importance. It not only yields edible oil but also other by-products, such as cotton seed cake, cotton seed hulls and linters. The development of cotton seed oil crushing industry in India is recent. The number of factories crushing cotton seed in the major cotton growing States of India is as under:

State	Number of cotton seed crushing factories
Andhra Pradesh	5
Bombay (Maharashtra and Gujarat)	43
Madhya Pradesh	7
Madras	1
Mysore	3
Punjab	52

The production of cotton seed oil in India which was 12,500 tons in 1955 reached the figure of 22,000 to 25,000 tons in 1957. If this trend in production continues, it is possible to attain, if not exceed, the target of 30,000 tons fixed for the Second Five-Year Plan.

The approximate composition of cotton seed in India, as per analytical results of the Technological Laboratory, Bombay, may be taken as given below:

Item	Approximate per cent
Linters	8.00
Hulls	25.40
Crude oil	15.95
Cake or meal	45.35
Manufacturing loss	5.30
Total	100.00

With a view to examining the immediate problems of cotton seed oil industry, the Government of India appointed an *ad hoc* Committee in 1957. The committee in their report submitted in 1958 have made several recommendations for promoting this industry, and *inter alia* recommended a plan for the development of the industry in two stages. The first stage envisages the production of 60,000 tons of cotton seed oil by the existing units and by establishing nine additional units. The second stage aims at the production of 70,000 tons of oil per annum by setting up new units of similar capacity.

For extraction of oil, seed of American varieties, which contains higher percentage of oil and is cheaper than the *desi* varieties, is preferred. The percentage of oil obtained from cotton seed varies according to the variety, season and quality of seed. The average oil content of different species has, however, been found to be 19.11 per cent in *hirsutum* types, 16.61 per cent in *herbaceum* types and 17.67 per cent in *arboreum* types.

CATTLE FEED

In India, unlike the countries in the West, cotton seed, as such, is fed to cattle and is preferred to cotton seed cake, though the latter is equally or even more nutritious and economical feed as compared to the whole cotton seed and other oil seed cakes commonly fed to the cattle. Cotton seed is said to increase the supply of butter fat, hence it is fed to milch cattle mostly during the lactation period and to a small extent only to others. The consumption of cotton seed is more in the winter season. For feeding purposes seed of *desi* varieties being naked or less fuzzy is preferred. The seed obtained by saw ginning is not liked for feeding purpose and is sold at a discount.

LINTERS

The short fibres (fuzz) which remain adhered to the cotton seed after ginning are known as linters and the operation of removing the fuzz is termed as delinting. Delinting of seed is carried out by specially designed gins known as delinting machines or by acid extraction method. As delinting reduces the absorption of oil and yields higher percentage of oil, the process is usually carried out at the oil extracting mills before crushing.

Delinting of cotton seed, before crushing, is practised at a very few places in the country and, at present, there are 11 oil mills equipped with delinting machines. The production of cotton linters in India is estimated to be about 3,500 bales annually, out of which 2,000 bales are consumed in the manufacture of cellulose acetate rayon and a very small quantity is exported.

The linters are usually coarse and thick-walled and vary in colour from green to yellow, buff or grey. The variation in colour is attributed to the closeness of the cut, presence of seed coat, dust and other foreign matter. They have no staple and the fibre is weak. They are used in the manufacture of paper, hats, carpets, cheap cloth, wicks, twine and ropes and as wadding and stuffing material. Being a pure form of natural cellulose, they form an important raw material of the chemical industries and are used in the manufacture of gun cotton, varnishes, artificial leather, photographic films, silk, etc.

CHAPTER XVII

INDIAN CENTRAL COTTON COMMITTEE AND ITS ROLE IN REGULARISATION OF COTTON MARKETING

The Indian Central Cotton Committee was established by the Government of India in 1921, in pursuance of the recommendations of the Indian Cotton Committee of 1917-18. In 1923, the Committee was incorporated under the Indian Cotton Cess Act and provided with separate funds to enable it to undertake work for the improvement of the growing, marketing and manufacture of cotton in India. The funds at the disposal of the Committee are utilised for research into cotton problems—agricultural and technological—mainly of all-India importance and for the development, extension and marketing of improved varieties of cotton. The major part of the research work financed by the Committee is concerned with the improvement of quality and for raising per-acre yield of cotton and thereby enhancing the total production.

The Committee realising from the outset that improvement in the science and practice of agriculture must go hand in hand with improvement in the method of disposal of the produce, devoted much attention to the improvement of primary marketing. As far back as in 1923, the Committee, after considerable discussion on the subject of cotton marketing and the success attained in Central Provinces and Berar, where some form of regulation of markets was in force, passed a resolution for establishment of regulated cotton markets throughout the major cotton growing tracts.

Investigations into the conditions under which the cotton crop was financed were conducted in seven most important cotton growing tracts in India, in late twenties. The information collected was of considerable interest and indicated that wherever regulated markets existed, the cultivators could obtain better prices for their cotton.

During 1933-36 the Indian Central Cotton Committee financed jointly with the then Imperial (now Indian) Council of Agricultural Research, an enquiry into the cost of production of cotton and sugarcane and their rotation crops in the principal cotton and sugarcane tracts of India. Much useful data were collected which, apart from their value to the student of rural economics, shed considerable light on the level of prices at which the cultivator might be said to be able to make a living.

On the recommendations of the Committee, cotton was included in the schedule of commodities under the Agricultural Produce (Grading and Marketing) Act, 1937. Specified improved varieties of cotton could, therefore, be

marketed under 'Agmark'—a guarantee of their purity. The Committee also financed some schemes for agmarking of cotton in some States.

The Indian Central Cotton Committee had also financed a cotton marketing survey in the undivided Punjab in 1938, with the object of collecting all available information on the system of marketing cotton in that Province with the object of providing foundation material and spot lighting the defects and suggesting measures for improvement and development of cotton marketing.

The Committee was also instrumental in initiating the system of full-time paid surveyors in connection with the surveys and arbitrations under the bye-laws of the East India Cotton Association. This system proved beneficial to the growers, the trade and the industry.

The Committee was successful in securing uniformity in the standards for certain varieties of cotton adopted by the East India Cotton Association and the Karachi Cotton Association prior to the partition of the country. Universal standards prepared by the Indian Central Cotton Committee were agreed to be adopted by the two associations. This avoided competition between the two markets.

Thus, the Indian Central Cotton Committee has played a very important role in the regularisation of marketing practices in India.

CONCLUSIONS AND RECOMMENDATIONS

Cotton, since time immemorial, has played a dominant part in the history of development of India's economy. In fact, the development of agricultural marketing in India also owes its birth to raw cotton problems in which the early Britishers were most interested. With a view to maintaining continuous supply of cotton to Manchester, all measures were taken to aid and encourage not only the cultivation in India of more and better cottons but even its clean marketing. All the cotton policies were dictated by this consideration and the pattern of marketing of cotton that developed then, therefore, suited the Lancashire textile industry.

There have been many swings in the cotton economy of the country during the past century but the shifts that have taken place during the last two decades have been very significant. The Imperial interest in raw cotton is no more there and the country does not depend on the exports of raw cotton to the U.K. and other foreign countries. The cotton textile industry which has developed considerably is utilising all the domestic supplies of long and medium staple cotton and the prices of cotton in India are no more determined by those ruling in New York as used to be the case previously. An important shift in the pattern of marketing that has emerged as a result of increase in the home consumption is that some textile mills have been now directly purchasing *kapas* and processing it in the important *mandis* located in the producing areas. The extent of such direct purchases as revealed by the present survey varies between 26 and 36 per cent in some States, viz., Madhya Pradesh, Madras, Maharashtra and Rajasthan. With all these changes in our cotton economy, the traditional marketing practices, evolved a century ago to suit export economy, more or less continue unchanged.

The present survey has revealed that though the marketing of cotton in India is comparatively better organised than that of any other agricultural commodity, the improvements have not kept pace with the fast developments achieved in other important cotton producing countries of the world, such as the U.S.A. Although cotton is, by far, the most important cash crop and is one on which the biggest organised industry of India is dependent, very little has been done to improve and develop marketing at the primary level, the stage at which the cotton producers are most concerned.

The growth of cotton marketing in India has been rather lopsided and unbalanced. Whereas at the apex, we have the well organised cotton exchange at Bombay, enjoying international recognition, at the base lie poorly

developed country markets lacking the minimum marketing facilities and services required for smooth trading in cotton. The weakness at the bottom greatly affects the overall efficiency of our cotton marketing machinery. The survey has spot-lighted many defects in our marketing system which work to the ultimate disadvantage of the cotton producers. Though some steps were taken to regulate cotton markets as early as 1896, and efforts for healthy development intensified after the reports of the Indian Cotton Committee (1919) and the Royal Commission on Agriculture (1928) in the twenties and thirties of the current century, the progress made has been halting and chequered. The bulk of the crop, varying between 30 and 75 per cent in the various cotton producing States, is still sold in the villages where no protection is given to the producers. The marketing practices and the methods of sale followed in the unregulated markets, and in some regulated markets also, still leave much to be desired. Only about two to four per cent of the crop is sold at present as lint while the rest is disposed of as *kapas* in utter disregard of quality factors. The entire cotton produced in the country, excepting a very small percentage graded under Agmark, moves ungraded to the terminal markets where the consumers enter into contracts for purchases on the basis of quality standards, fixed by the East India Cotton Association. In the absence of any cotton classification service, even in the most organised spot market at Sewri (Bombay), the transactions are completed after inspection of lots and after drawing samples from four to eight per cent of the bales offered.

The need to produce more and better cotton continues unabated and cotton being an important commodity, its marketing is of vital importance. But, there is yet inadequate appreciation of the need to improve the marketing, particularly at the primary and secondary levels, where the producers are vitally concerned. With a view to achieving the desired efficiency in the marketing of cotton, the following recommendations are made:

PRODUCTION

1. The importance of fairly accurate production estimates in the marketing of any agricultural commodity needs no emphasis. The official figures as published in the final cotton forecasts are usually under-estimates and widely differ from the estimates made by the trade and subsequently arrived at by the Indian Central Cotton Committee. As the crop estimates have an important bearing on the prices, it is imperative that the accuracy of official forecasts be improved. Steps have no doubt been taken to make an objective assessment of production by random sampling technique for determining the average yield of *kapas* per acre. This technique should be perfected speedily and adopted by all the States. The accuracy of official crop estimates would then be ensured.

2. While estimating the actual production of cotton, the Indian Central Cotton Committee has been taking into consideration the extra-mill consump-

tion of cotton calculated on the basis of surveys conducted in the past. With the emphasis on *khadi* production and with the increased quantum of lint utilised for stuffing mattresses, etc., as a result of the rise in the standard of living, the extra-mill consumption of cotton has been progressively on the increase. This factor, therefore, requires periodical revision. It is, therefore, recommended that periodical surveys—once in ten years—may be conducted to estimate the extra-mill consumption.

3. The trade members have their own means of assessing the crop production. Their estimates, which are nearer the final returns, are generally higher than the official figures. The Indian Central Cotton Committee is in a position to estimate the actual production a year later when the entire crop has moved. The official figures are no doubt adjusted and revised subsequently in the light of this but these revised figures only help to maintain a correct series of records. In practice, the trade estimates of production alone seem to be relied upon. The Government have recently decided to discontinue the publication of production estimates in the third and fourth forecasts. Cotton being an important commercial crop, timely and periodical release of reliable official production estimates is considered essential for proper functioning of the cotton market. As already recommended by the Indian Central Cotton Committee, these estimates should be continued to be included in the third and fourth forecasts. Steps should also be taken to remedy the defect in collection and compilation of crop estimates and official forecasts made more realistic.

4. In order to meet the expected increase in the *per capita* consumption of cloth, a target of 7.2 million bales of cotton production to be achieved by the end of the Third Five-Year Plan (1965-66) has now been fixed. As the scope for expanding the acreage under cotton is now limited, the target fixed can be achieved mostly by increasing the per-acre yield of cotton. The average yield in India continues to be the lowest in the world. There is, therefore, great need for enhancing the average per-acre yield by growing improved high yielding varieties, application of manures and fertilisers, extension of irrigation facilities, adoption of improved cultural practices and control of insect pests and diseases. Efforts in this direction are already being made, but to achieve the desired target, they require to be further intensified.

PREPARATION FOR MARKET

5. The marketing of cotton like that of any other agricultural commodity begins when it is being produced. Even though superior varieties are being grown, careless picking of cotton results in inferior produce, fetching low prices when sold. Thus, the ignorant cultivators feel that there is no advantage for them to grow more and better quality cotton and their enthusiasm is thus dampened. It is an age old complaint that proper care is not taken in picking of *kapas* in India with the result that the grade of the resultant lint, after ginning,

is lower than what it would otherwise be if the cotton is picked with proper care. The defects in picking not only react on the prices paid to the grower but also affect the quality of the yarn produced from that lint. It is, therefore, very essential that the cotton growers be educated in regard to clean picking of cotton.

Besides careless picking, the practice of paying the labour in kind, still prevalent in many parts of the country, also affects adversely the quality of the crop, as it leads to mixing of different varieties. It is felt that this practice is due to lack of ready cash with the growers. The solution for this lies in encouraging the formation of village co-operative credit societies, which would make available the necessary funds to the growers. However, this indigenous method cannot altogether be eliminated in the remote parts and the only solution that is feasible is to demarcate areas for the cultivation of a single variety and apply the necessary legislation, like the Cotton Transport and the Cotton Control Acts, to the specific zones and tracts. Till such time the single variety zones are created, it is recommended that the practice of paying labour in kind should be discouraged by forming co-operative credit societies.

The Indian Central Cotton Committee should take suitable steps and carry-out intensive propaganda through the cotton extension staff and National Extension Service. A popular folder may be prepared for the purpose and distributed among the producers through various agencies. For educating growers in regard to clean picking of cotton and allied topics in cotton growing, documentary films may be prepared and exhibited in rural areas through local agencies, like market committees, *gram panchayats*, etc.

6. Besides the care taken in harvesting, ginning of *kapas* has considerable influence on the quality and the price of the lint as the trade discounts are heavy for poor ginning. The survey has revealed that very little attention is being paid in the country to the ginning problems by the owners of ginning factories. The Economic and Technical Survey of gins, conducted by the Technological Laboratory of the Indian Central Cotton Committee, in 1955-56, also drew pointed attention to various defects and suggested the improvements needed. A large number of gins are old and obsolete. Small units are run by untrained persons. *Kapas* and lint are not being cleaned before ginning and pressing, respectively. The recommendations made in the reports of the Economic and Technical Survey should be implemented expeditiously and the Cotton Ginning and Pressing Factories Act be suitably amended to include a clause that only gin fitters, possessing a certificate from recognised institution, should be allowed to operate the machinery. It is also recommended that the licences of such of the ginneries as are declared obsolete and unfit for carrying out ginning be withdrawn.

7. In some areas, the total capacity of the gins far exceeds the expected supplies of *kapas*, with the result that the volume of ginning in majority of factories is too small for efficient and economic operation. This has led to the

formation of ginning pools. The practice of formation of pools by the ginning and pressing factories was regarded as objectionable and prejudicial to the interest of the growers by the Indian Cotton Committee as early as in 1919. Subsequently, the Cotton Marketing Committee appointed by the Ministry of Agriculture, under the Chairmanship of Dr. P. S. Deshmukh in their report in 1951 also commented on this practice and recommended that formation of pools should be allowed only under a permit and the rates for ginning and pressing should be subject to the approval of the controlling officer. No action in this direction appears to have been taken. Though the object of the ginning pools, i.e., economic working of some units, if not all, is laudable, the methods adopted virtually confer monopoly on the few ginning factories allowed to operate during the season. This is detrimental to the interest of the trade as well as of the growers. Formation of pools of ginning factories should be allowed only under permit.

8. Instances of many malpractices indulged in by the ginning factories, such as mixing of inferior varieties with the superior ones and sprinkling of water, have also come to notice during the survey. It is, therefore, recommended that the enforcement of the Cotton Ginning and Pressing Factories Act, now operating in various States, be made strict and proper supervision be exercised over the ginning factories. The administration of the Cotton Ginning and Pressing Factories Act should be solely entrusted to the State Directors of Agriculture and necessary machinery set up for adequate supervision.

9. The study of cotton marketing costs has shown that in the marketing cost structure, ginning and pressing charges constitute a major factor and account for 35 per cent of the total costs. With the replacement of old machinery and with the economic working of units, the cost on this item could be substantially reduced. No control is exercised on the ginning and pressing charges by the State authorities except in the Punjab. In that State, the rates are fixed by the Government much after the season has commenced. The State Governments, under the Cotton Ginning and Pressing Factories Act, should provide in the rules adopted under the amendment Act for fixation of reasonable ginning and pressing charges every year before the season commences, in consultation with the various interests.

MARKETING

10. Over 96 per cent of the total production of cotton in the country is sold by the growers as *kapas* in the villages and nearby markets. The fact that the growers stand to benefit if the cotton produced by them is sold in the form of lint instead of *kapas* is not contested. It is, therefore, necessary to take certain steps for the gradual change-over of the prevailing system. The limiting factor in this regard, however, is that majority of the cotton producers are small growers and it is not possible for them to sell small lots in the form of lint. The co-operative marketing organisations can play an

important part in effecting the desired change. At present, a majority of the cotton co-operative societies are functioning as commission agents for their members and they sell the individual lots of cotton received by them as *kapas*. The cotton co-operative societies operating in the South Gujarat have been responsible for changing the pattern of marketing in that region where almost all the crop is now being sold in the form of pressed bales. It is, therefore, recommended that as a rule, all the cotton co-operatives should work on the lines of the Gujarat co-operatives and adopt the system of pooling of the member's *kapas*. The produce may be sold in the form advantageous to grower-members, either as *kapas* or as lint, after getting it processed either in the co-operative ginning and pressing societies, with whom they may be affiliated, or through private ginneries.

Processing of agricultural commodities by co-operatives, before sale, was recommended by the Committee of Direction of the Reserve Bank of India for Rural Credit Survey and in pursuance of this recommendation, some co-operative ginning and pressing factories have already been set up and some more will be set up in the near future. It is expected that with the increase in the number of co-operative ginning and pressing societies, the quantum of sale of cotton as lint would increase appreciably.

11. To eradicate the malpractices and rationalise market charges, statutory regulation of markets was introduced as early as 1896. It is gratifying to note that out of a total of over 500 important cotton markets, 400 are already regulated in the States of Maharashtra, Gujarat, the Punjab, Madras, Mysore, Madhya Pradesh and Andhra Pradesh and market practices and market charges rationalised. The States of Rajasthan and Uttar Pradesh which also produce appreciable quantity of cotton, have not yet enacted any market legislation and cotton markets there are not regulated. It is, therefore, recommended that these States should also enact necessary legislation and regulate the cotton markets expeditiously.

In the States where the Market Acts are in operation, regulation of markets has not been extended to all the important cotton markets, particularly in the Saurashtra region of Gujarat. Early steps should, therefore, be taken to bring all the cotton markets within the orbit of Market Acts in such areas.

12. The survey has shown that sales in villages are very much in vogue, particularly in the States of Uttar Pradesh and Rajasthan. Though it is said that the prices obtained on the farms are competitive, the marketing of cotton in the villages is not free from malpractices, such as short weights and unwarranted deductions, which ultimately result in lower net price. The system of sales in the villages, if regulated and supervised properly, would no doubt be in the interest of the producer-sellers as they would not have to transport their produce to the assembling markets which in some cases are located at great distances exceeding 20 miles. Even in the States where all the important cotton markets have been regulated under the Agricultural

Produce Markets Act, the market committees, which exercise control within their respective notified market areas, extending to a *tehsil* in most cases, by and large, have not taken any direct steps to regulate the sale and purchase of cotton in the villages; all the same they have been successful in bringing about a reduction in the quantum of sales in the villages. There is sufficient evidence to show that the regulated markets have become popular and more and more growers have been bringing their produce to the central market yards for disposal every year. Some of the market committees have even set up sub-market yards within their notified areas and have thus helped to decrease the sales in the villages in their areas. To wean away the cultivators from the itinerant and village merchants, the only remedy, therefore, appears to be that marketing facilities may be provided, as near to the farm as possible. It is, therefore, recommended that regulation of markets should be extended to minor centres by either forming separate market committees wherever feasible or by opening more sub-market yards, affiliated to the main market committee of the region.

13. One of the main reasons why some cultivators prefer to sell their cotton in villages is that all the villages are not connected by road with the regulated markets. It is, therefore, recommended that wherever regulated markets are functioning, the villages coming within the feeding area of that market, should be connected with the main roads leading to that market by taking up an intensive programme for construction of feeder roads. Each market committee should survey its respective area and pursue the matter of linking all the villages by road with the central or sub-market yards in that area, with the Community Development Block Administration or the other appropriate State authorities. A good percentage of the *octroi* duties and terminal taxes collected by local bodies should be ear-marked by those bodies for construction of feeder roads.

14. The regulated markets can draw more farmers to the central market yards by carrying out adequate propaganda and publicity in their respective areas by educating the growers in regard to the benefits that accrue to the farmer by the sale of their produce in the yards and thus making them market conscious.

15. Though regulation of markets has been extended to a large number of cotton markets in the country, the objectives do not seem to have been fully achieved. There has been visible improvement in the reduction of market charges, but most of the market committees have not effected the desired improvements in the methods of sale and provided necessary ancillary marketing services, such as grading and amenities for the users of the market. Open auction system of sale which is recognised as the best method of securing competitive prices by the sellers has been introduced in most of the markets, but in some the traditional methods of sale, such as *fardi* system, blockwise system, *hatta* system, etc., still continue. The *fardi* and blockwise systems have

no doubt an advantage of expeditious disposal of the large number of carts, over 3,000 arriving daily in some big cotton markets, but these practices are hardly commendable as the ultimate price is determined at the time of the delivery. These systems of sale should be replaced early by either open auction system of each lot or by written bid system as followed in Salem market of Madras State.

16. In 90 per cent of the regulated markets, weighment of *kapas*, after the transaction is completed, is generally done in the ginning factories, which are scattered and are at a distance from the market yard. No proper supervision can, therefore, be exercised over weighment and daily many disputes arise at the time of delivery and the prices settled by auction are generally reduced. To ensure proper weighment and to avoid disputes, delivery and weighment of cotton in the market yards should be encouraged if delivery within the yard is specifically demanded by the grower. The same may be permitted without any extra cost to the grower-seller. For the expeditious weighment in the market yards, it is necessary to provide weigh-bridges in all the big cotton markets.

The reasons given for not effecting the delivery within the market yards are that the market yards are congested and it becomes difficult to effect delivery in the yards. In the market yards, no paved platforms are provided with the result that the cotton is unloaded on the ground and gets mixed up with dust. Provision of spacious market yards with adequate facilities, therefore, appears to be necessary, wherever feasible. To enable the market committees to set up proper yards, liberal financial assistance may be given by the State Governments and adequate funds provided in the annual budget for advancing long-term loans on easy terms to the market committees.

17. In almost all the regulated markets, the produce is still sold through commission agents. It is true that the commission agents finance the cultivators and perform some services for them and help them in the disposal of their produce. But there are some growers who need no help of the commission agents. The market committees should, therefore, provide facilities to enable cultivators to dispose of their cotton directly if they so desire.

18. The various expert committees appointed by some State Governments to review the working of the Agricultural Produce Markets Acts have pointed out many defects in their enforcement. These defects require to be remedied early by suitably amending the respective State Acts and by stricter enforcement.

CO-OPERATIVE MARKETING

19. The role of co-operative marketing societies, in helping the producers to realise better prices for their produce, is well recognised. During 1957-58, it was estimated that only about five per cent of the total Indian cotton crop

(based on value) was marketed through co-operative societies. This indicates that there is still a vast scope for developing co-operative marketing of cotton. If it has been possible for the co-operative societies in South Gujarat to handle a substantial proportion of the cotton crop of that region, it should not be difficult for the co-operative societies in other regions to do likewise, provided they are run efficiently. Successful working of the cotton marketing co-operatives in the South Gujarat and Gadag areas has proved that the co-operative societies can play a dominating role in the marketing of cotton. The healthy practices followed by these co-operative societies have been adopted by the trade and thus the morale of the markets in these regions has been raised. Programmes have been formulated and implemented during the Second Five-Year Plan for development of co-operative marketing on the lines recommended in the Rural Credit Survey Report. The efforts require to be intensified during the Third Plan period.

20. The need for processing of agricultural produce before sale has also been fully recognised and with the setting up of more co-operative marketing organisations and service co-operatives, it is all the more imperative that a large number of co-operative ginning and pressing societies be established to enable the co-operative marketing organisations to gin the *kapas* assembled by them and sell it as lint. There should be at least one co-operative ginning and pressing society in each of the important cotton markets.

21. Linking of co-operative credit societies with the marketing societies, which is already accepted, should also be expedited.

22. The cotton co-operative societies through their unions or apex organisation may also establish contacts with the textile mills and dispose of directly the produce assembled by them after getting it ginned and pressed.

FORWARD MARKETING

23. The prices in the spot market at Bombay are generally higher than the futures prices, but the divergence between the two during the past few years has been very wide. The experience gained in the working of the futures market in Bombay appears to indicate that there is room for suitable revision and improvement of the contract.

GRADING AND STANDARDISATION

24. For orderly marketing of farm produce, grading on the basis of recognised standards is a necessary adjunct. The need is greater in a commodity like cotton where variations occur not only between the varieties but within the variety also. Under the system of picking and ginning, prevailing in the country, there is variation even within a single bale. Absence of any recognised system of classification of cotton renders marketing of cotton less efficient and outmoded. Standards have been fixed by the East India Cotton Association, Bombay, but these are followed only at the last stage of marketing

of raw cotton when the delivery is effected to the textile mills or the exporters. In the interior, market transactions take place without any regard to quality factors and the bales of cotton move to the consuming centres ungraded. Due to lack of proper standards, the prices ruling in local markets do not fully reflect the differentials in the prices fixed for various types under the Cotton Control Order or with those ruling in the principal cotton market of Bombay. Even in the spot market at Sewri, where contracts are entered into on the basis of quality standards prescribed by the East India Cotton Association, samples are drawn and the lots inspected. Everytime a lot changes hands, additional expenses are incurred on sampling and classification. This system is both time-consuming and unscientific and is not in keeping with the modern trends and developments. Further, such a system provides little or no incentive for quality production. In fact, it promotes a tendency towards inefficient production, harvesting and marketing. To improve the marketing of cotton, it is, therefore, imperative that positive steps be taken to promote the sale of cotton on the basis of some standard recognised grades and sets of standard grades might be provided in all the important regulated cotton markets by the market committees.

25. A beginning in grading of cotton on purity basis was made in 1941 under the Agricultural Produce (Grading and Marking) Act, 1937. The system of grading, popularly known as Agmarking of cotton, has only been extended to a small percentage of the total crop. As this scheme is linked with the schemes for multiplication of pure seed of improved varieties, it has served only a limited purpose of enabling the State Departments of Agriculture to secure back supplies of pure seeds of improved varieties for further distribution and has helped the registered growers constituting the reserved areas in the schemes for multiplication of improved varieties, to obtain premium for their pure cotton. Agmark grading does not, however, take into consideration the quality factors, viz., colour, lustre, leaf and preparation, which determine the grade of cotton and also the staple length which varies even in the pure varieties grown on different farms. It is, therefore, of not much help to the ultimate consumers, viz., the textile mills. Agmark grades, therefore, require to be suitably amended so as to include the quality factors.

26. Till such time as the pilot studies like the one that is being conducted in Surat area by the Directorate of Marketing and Inspection, which will help in prescribing the staple length and other spinning values of a fibre, are completed, it is recommended that immediate steps be taken to include colour, lustre, leaf and preparation of cotton in the Agmark grades. While revising the Agmark grades, the present grades prescribed by the East India Cotton Association that have already been adopted by the merchants operating in Bombay market, should be taken into consideration.

27. In India, over 96 per cent of cotton crop is still sold as *kapas* in the villages and in the wholesale markets. The important issue that arises for

consideration is whether there should be grades for lint only or both for lint and *kapas*. Till such time as co-operative processing of cotton develops and the system of selling in the form of lint is adopted, the system of selling cotton as *kapas* will continue. With a view, therefore, to benefiting the growers as well as the buyers in the interior, who may sell or purchase both the *kapas* and lint, grade standards have to be fixed for both. Sale of *kapas* on the basis of grades incorporating the factors of purity, ginning outturn and cleanliness has already been introduced by some co-operative societies operating at Gadag and Hubli in Mysore State. The example can be followed by other co-operatives and the regulated markets handling cotton. The possibilities of fixing grade standards for *kapas* under Agmark may also be investigated.

MARKET INTELLIGENCE

28. Regional price information gathered from local and other nearby markets and disseminated in small areas would provide comfort to the farmer by assuring him that the prices obtained by him are in no way less than those realised for same quality by other farmers in the same village and in the neighbourhood. Greater localisation in the dissemination of market news, which would meet the requirements of the producers and the traders in a given area, should, therefore, be aimed at. The market committees in some important regulated markets of cotton and the State Marketing Departments may take up this work and collect market information relating to prices, arrivals, movement, etc., in the region, and issue daily or weekly bulletins for the region. Such bulletins would be of immense help to the co-operative societies and warehouses functioning in that region.

29. In some regulated markets, price information is also announced through loudspeakers. This should be done in all the cotton regulated markets so that the producers visiting these markets may be apprised of current market prices.

30. With a view to curbing excessive speculation in cotton, it has been the policy of the Government not to broadcast on the radio the daily futures prices. This decision was taken when the futures trading was banned. With the regulation and control exercised over forward markets, this policy needs revision.

31. During the survey, it has been found that records maintained by most of the regulated market committees, in respect of price data, are not in proper form or even up-to-date. In the markets where lint and cotton seed are sold, their prices are not at all recorded. The prices of *kapas* wherever recorded are without any reference to quality and, as such, comparison of prices is rendered difficult. Studies, like seasonal variation in prices and relationship between *kapas* and lint prices, are of great interest to all engaged in the production and trade of cotton and also for taking policy decisions in respect of fixation of prices. It is, therefore, recommended that all the

regulated market committees in the country be required to maintain necessary data in a proforma that might be prescribed by the Indian Central Cotton Committee. Besides prices, the following other items of market information, essential for a study and analysis of price trends, need also be included in the proforma :

- (i) Daily market arrivals, varietywise and qualitywise.
- (ii) Daily sales, varietywise and qualitywise.
- (iii) Daily stock with wholesalers, varietywise and qualitywise.
- (iv) Factors responsible for sharp or abrupt changes in market arrivals, stocks and prices.

MARKET FINANCE

32. The integrated scheme recommended by the Committee of Direction of the Reserve Bank of India for Rural Credit Survey, which has now been implemented by the Government, aims at the strengthening and expansion of the co-operative credit societies and their linking with the co-operative marketing organisations. The commission agents operating in the markets still continue to dominate in the financing of production of cotton. Owing to considerable procedural delays involved in the matter of advancement of loans by the co-operatives, the cultivators are reluctant to join the co-operatives and avail themselves of the credit facilities. They, therefore, continue to go to the commission agents who readily advance the required loans. The system of advancing short-term loans by the co-operatives, therefore, requires to be simplified and liberalised.

LEGISLATION

33. Though a number of useful legislations, such as the Cotton Transport Act, 1923, the Cotton Ginning and Pressing Factories Act, 1925, and the State Cotton Control Acts, have been enacted and enforced for the betterment of the quality of the cotton produced in the country, the present survey has revealed that in many areas, due to laxity in the enforcement of these beneficial legislations, malpractices continue unchecked. With the increasing importance attached not only to the production of more cotton but also to the production of quality cotton of the standard purity, strict enforcement of all the legislations and tightening of control in the different cotton growing States are recommended. The administration and enforcement of these Acts should be vested in one authority, viz., the State Directors of Agriculture. The appointment of Liaison Officers as recommended by the Indian Central Cotton Committee should be expedited in all the important cotton growing States.

As it is found that the work involved in supervising the various ginning factories and check-posts is arduous, it is necessary that for the efficient enforcement of the different legislations, adequate supervisory staff might be

provided, the details of which might be worked out by the Indian Central Cotton Committee.

WEIGHTS AND MEASURES

34. There is no uniformity in the weights and measures that are used in different regions of the country. With the complete switch over to the metric system of weights, it is hoped that uniformity in this regard will be brought about in the country.

The units of price quotation also vary from market to market, and the price comparison becomes difficult. As metric system of weights is now being introduced, opportunity may be availed of to have an uniform basis of price quotation in all the markets. It has already been suggested by the Ministry of Commerce and Industry that the unit of price quotation for cotton lint should be one quintal (100 kilograms). The unit of price quotation of *kapas* for adoption in the interior markets might also be fixed in relation to that of lint, preferably 30 kilograms. The regulated markets may give a lead in the matter. In the initial stages, in order not to inconvenience the illiterate grower, the transition period for the change-over should be extended to five years.

GENERAL

35. Marketing of any agricultural commodity forms an integral part of the production activities. The functions of the Indian Central Cotton Committee, as defined under the Indian Cotton Cess Act, 1923, under which the Committee is constituted, include improvement and development of marketing of Indian cotton. Hitherto, the Committee has carried out occasional investigations relating to some specific marketing problems, such as finance, etc., but the development of cotton marketing in the interior markets has not received adequate attention. It is recommended that as in other Commodity Committees, the Indian Central Cotton Committee may constitute a separate Marketing Sub-Committee for the development and improvement in cotton marketing in the different States.

36. It is suggested that the Agricultural Marketing Adviser to the Government of India be nominated as a Member of the Indian Central Cotton Committee to help the Committee in the consideration of subjects relating to marketing of cotton.

37. During the Third Five-Year Plan, various developmental programmes, viz., promotion of co-operative marketing, warehousing, regulated markets and grading, relating to marketing of agricultural products, including cotton, have been formulated. The implementation of those programmes will have their impact on the marketing system and bring about shifts in the marketing pattern, structure, methods and trends. In the present survey on marketing of cotton, many defects existing in the marketing system have been pointed out and suggestions made for remedying the same. To keep a watch on the

changes that are likely to take place as a result of various important programmes that are being implemented or may be initiated, it is recommended that a Cotton Marketing Section may be created either in the Secretariat of the Indian Central Cotton Committee or in the Directorate of Marketing and Inspection and necessary technical staff appointed for the purpose.

38. The improvements in respect of cotton marketing, envisaged in the recommendations made above, can be effected only through positive action taken by the State and the Central Governments and by the many concerned organisations and individuals—both the producer and the trader. The grower who is at present indifferent to his marketing problems, should be enabled to take more interest in the marketing of his farm produce in future. The weak bargaining position of the grower has to be strengthened. Some awakening has already come among the growers and the time is, therefore, opportune for educating the cotton growers more and more in regard to improved methods of marketing and the benefits of selling in the regulated markets and the advantages of co-operative marketing and warehouses. Hitherto no attention has been paid to the marketing extension work and a concerted and sustained effort in this regard is, therefore, very essential. With a view to preparing the cotton growers for the changes that are contemplated to be brought about in the marketing system of cotton, it is necessary that the cotton extension staff in the States and the National Extension Service should include in their programmes, work relating to extension of marketing improvements.

39. A comprehensive summary of this report may be published separately and distributed, free of cost, to all the regulated markets, co-operative and other institutions dealing in cotton.

APPENDIX

TRADE DESCRIPTIONWISE COTTONS GROWN IN INDIA—THEIR CHARACTERISTICS AND SOWING AND HARVESTING MONTHS AND TRACTS WHERE GROWN

Cotton by trade description	Varieties	Characteristics				Months of		Tracts where grown	
		Staple length (32nd inch)	Ginning percentage	Feel	Blow-room loss per centage	Sowing	Harvesting		
I. Americans	Buri-American (0394)	28-30	32-34	Pearly white	4	28	June	Nov.-Jan.	Vidarbha Division of Maharashtra State, and Madhya Bharat and Mahakoshal regions of Madhya Pradesh
	Indo-American 134-Co.2-M	34-38	34-36	Creamy	5-8	36-38	June-July	Dec.-Mar.	Gujarat State, Deccan Canal area of Maharashtra State and Dungarpur district of Rajasthan
	Indo-American 170-Co.2	32-36	36-38	Pearly white	5-8	36-38	June-July	Dec.-Mar.	Kurnool, Anantapur, Cuddapah and Mehboobnagar districts of Andhra Pradesh, and Dharwar, Belgaum, Bijapur, Bellary, Raichur, Chitaldrug and Shimoga districts of Mysore State
	Laxmi	29-30	36	Creamy	6	32	Aug.-Sept.	Feb.-May	American cotton other than Buri-American grown in Madhya Bharat and Mahakoshal regions of Madhya Pradesh
	Madhya Pradesh-American	26-28	32	White	9	22-24	June	Nov.-Jan.	

APPENDIX--(Contd.)

Cotton by trade description	Varieties	Characteristics				Months of			Tracts where grown	
		Staple length (32nd inch)	Ginning percentage	Colour	Feel	Blow-room loss per-centage	Spinning capacity	Sowing		Harvesting
A. Americans (Contd.)	Madras Cambodia	32-35	32	Pearly white	Silky soft	4-7	36-38 (winter)	Sept-Oct.	Mar.-Apr.	Madras and Kerala States, Deccan Canal area of Maharashtra State, Dharwar district of Mysore State and Andhra Pradesh
	Uganda 2									
	Madras Cambodia	32-34	35	Creamy white	Silky soft	8	36 (summer)	Feb.-Mar.	Aug.-Sept.	
	Uganda 1									
	Madras Cambodia Co.2	30	31	Bright, slightly creamy	Good soft	5-7	24-28	Feb.-Mar.	Aug.-Sept.	
Madras Cambodia (Others)	28	33	Bright, slightly creamy	Good bodied	5-7	22-26	Feb.-Mar.	Aug.-Sept.		
Mysore-American (M.A.5)	33-34	35	Pearly	Soft, silky	6	32	Mar.-July	Jan.-Mar.	Mysore, Hassan, Chickmagalur, Shimoga, Mandya, Chitaldrug and Bellary districts of Mysore State	
Parbhani-American	28	32-33	Dull white	Silky	8-10	24-28	June-July	Oct.-Dec.	Adilabad district of Andhra Pradesh, West Bengal, and Kinwat taluka of Nanded district of Maharashtra State	
Punjab-American H.14	30	35	Creamy white	Soft	8-13	32	Apr.-May	Oct.-Jan.	Ganga Canal colony of Rajasthan, Hissar, Karnal and Rohtak districts of the Punjab	

MARKETING OF COTTON IN INDIA

APPENDIX—(Contd.)

Cotton by trade description	Varieties	Characteristics					Months of		Tracts where grown	
		Staple length (32nd inch)	Ginning percentage	Colour	Feel	Blow-room loss per centage	Spinning capacity (counts)	Sowing		Harvesting
I. Americans (Contd.)	Punjab-American 320F	28-30	34	White	Silky	12	32	Apr.-May	Oct.-Jan.	Ambala, Amritsar, Bhatinda, Ferozepur, Hissar, Jullundur, Ludhiana, Patiala and Sangrur districts of the Punjab
	Punjab-American L.S.S.	26-28	33	White bri-ghush	Good	6-10	24	Apr.-May	Oct.-Jan.	Ferozepur district of the Punjab
	Punjab American 216F	28-30	33	White	Silky	12	32	Apr.-May	Oct.-Jan.	Gurgaon, Hissar, Karnal, Rohtak and Sangrur districts of the Punjab
	Rajasthan-American (C. Indore I)	26-28	30	—	—	10	20	Apr.-May	Oct.-Jan.	American cotton other than Punjab-American grown in Bikaner Division and C. Indore I in Udaipur, Ajmer and Kota Divisions of Rajasthan
	Vidarbha-American	26-28	32	White	Soft	9	22-24	June-July	Nov.-Jan.	American cotton other than Buri-American cotton in Vidarbha region of Maharashtra State
II. Bengals	Punjab Desi	19	35	Good white	Full bodied	7	6	Apr.-July	Sept.-Jan.	The Punjab, Delhi and Himachal Pradesh
	Rajasthan Desi	17	33	Good white	Full bodied	11	8-11	Apr.-July	Sept.-Jan.	Rajasthan (excluding Jhalawar district and Pratapgarh and Nimbahera tehsils of Chittor district)

APPENDIX—(Contd.)

Cotton by trade description	Varieties	Characteristics					Months of		Tracts where grown	
		Staple length (32nd inch)	Ginning per-centage	Colour	Feel	Blow-room capacity loss per-centage	Sowing	Harvesting		
II. Bengals (Contd.)	Uttar Pradesh Desi	20-21	34	Good white	Full bodied	6-10	6-8	Apr.-July	Sept.-Jan.	Uttar Pradesh, Bihar and Orissa (except the districts of Koraput and Ganjam) and Vindhya Pradesh region of Madhya Pradesh
	Uttar Pradesh Desi (35/1)	26	37	Bright white	Coarse	6	16	Apr.-July	Sept.-Jan.	
•III. Broach-Vijay	Vijay	24-28	39-40	White	Good soft	5-6	26-28	June-July	Jan.-Mar.	Broach (Broach, Jambusar, Vagra and Amod talukas and part of Nandod taluka lying north of the river Narbuda), Baroda, Kaira, Sabarkantha and Panchmahals districts and part of Ahmedabad district lying south of the river Sabarmati including part of Daskori and City talukas and whole of Dehgam taluka of Gujarat State
IV. Comillas	Comillas	12-14	47	White or khaki	Harsh	6-8	8-10	May	Oct.-Dec.	Assam and Tripura States
V. Dholleras	Kalyan	26-27	39-40	Pearly	Coarse	6	20	June-July	Dec. Mar.	Ahmedabad (excluding the portion shown against Broach-Vijay), Banaskantha, Mehsana and Zala ward districts of Gujarat State

APPENDIX—(Contd.)

Cotton by trade description	Varieties	Characteristics					Months of		Tracts where grown	
		Staple length (32nd inch)	Ginning percentage	Colour	Feel	Blow-room loss percentage	Spinning capacity	Sowing		Harvesting
V. Dholleras (Contd.)	Mathio	16-18	30	Creamy	Slightly rough	15	10-12	June-July	Dec.-Mar.	Cohilwad and Amreli districts of Gujarat State
	Pratap	24-26	32	Dirty white	Soft	6-8	18-20	June-July	Oct.-Dec.	Amreli and Gohilwad districts of Gujarat State
	Saurashtra and Kutch Dholleras	24-26	37	Bluish white	Silky	12-15	14-18	June-July	Oct.-Dec.	Wagad, Kalagin and other staple cotton grown in Madhya Saurashtra, Zalawad, Sorath, Halar and Kutch districts of Gujarat State
VI. Hyderabad Gaorani	Gaorani 6	28-30	32	White to creamy white	Soft	6-10	26-28	June	Oct.-Dec.	Nanded district and Hingoli, Kalamnuri and Basmath talukas of Parbhani district of Maharashtra State, and Nirmal and Mudhol talukas of Adilabad district of Andhra Pradesh
	Gaorani 12	28-30	31	White to creamy white	Soft	6-10	26-28	June	Oct.-Dec.	Osmanabad and Aurangabad districts, Mominabad taluka of Bhir district and Parbhani, Gangakhed and Jintur talukas of Parbhani district of Maharashtra State, and Gulbarga district of Mysore State and Medak district of Andhra Pradesh
	Gaorani Ordinary	28	28	White to creamy white	Soft	9-13	24-26	June	Oct.-Dec.	

APPENDIX—(Contd.)

Cotton by trade description	Varieties	Characteristics					Months of		Tracts where grown	
		Staple length (32nd inch)	Ginning percentage	Colour	Feel	Blow-room loss per-centage	Spinning capacity (counts)	Sowing		Harvesting
VII. H.420	H. 420	28	33-34	Bright white	Silky	4	24-30	June-July	Oct.-Jan.	Nimar district of Madhya Pradesh, Nagpur, Wardha, Akola, Amravati and Yeotmal districts of Maharashtra State; Anantapur, Cuddapah, Kurnool and Guntur districts of Andhra Pradesh and Bellary district of Mysore State
VIII. Malvi	Malvi	22-24	32	White	Soft	11	14-16	June-July	Oct.-Jan.	Rajgarh, Shajapur, Ujjain, Ratam, Mandasaur, Dewas, Indore, Dhar, Nimad, Jabua, Raisen and Sehore districts of Madhya Pradesh; Nimbahera and Pratapgarh taluqs of Chittor district and Zalawar district of Rajasthan
IX. Oomras	Barsi-Nagar Oomras	18	33-38	White to creamy white	Slightly rough	9-11	10-12	June-July	Sept.-Jan.	Ahmednagar, Poona and Sholapur districts of Maharashtra State
	Vidarbha Oomras	18-22	35	Good white	Soft	7-10	8-16	June-July	Sept.-Jan.	Nagpur, Wardha, Akola, Amravati, Yeotmal and Chanda districts of Maharashtra State

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APPENDIX—(Contd.)

Cotton by trade description	Varieties	Characteristics				Months of			Tracts where grown	
		Staple length (32nd inch)	Ginning percentage	Colour	Feel	Blow-room loss percentage	Spinning capacity	Sowing		Harvesting
IX. Oomras (Contd.)	Hyderabad Oomras	18-20	33-38	Creamy white	Harsh	9-11	8-12	June-July	Sept.-Jan.	Bhir (except Mominabad <i>taluka</i>) and Rejura <i>taluka</i> of Nanded district of Maharashtra State; Adilabad (Khanapur, Sirpur, Laxmipet and Asifabad <i>talukas</i>), Nizamabad (except Bichkonda and Jukkal Circles), Karimnagar and Warangal districts of Andhra Pradesh
	Madhya Pradesh Oomras	16-20	33	Good white	Soft	12-13	8-12	June-July	Sept.-Jan.	Madhya Bharat and Mahakoshal regions of Madhya Pradesh
X. Southern	Chinnapathi	17-20	25	—	—	6-8	8-10	July-Aug.	Mar.-Apr.	Ganjam and Koraput districts of Orissa State; Srikakulam and Vishakhapatnam (excluding Gogonda <i>taluka</i>) districts of Andhra Pradesh
	Cocanadas 1	24-26	28	Reddish	Soft	6-12	18-22	July-Sept.	Jan.-Apr.	Nelore, Guntur, Kistna, East Godavari, Nalgonda and West Godavari districts and Gogonda <i>taluka</i> of Vishakhapatnam district of Andhra Pradesh
	Cocanadas 2	24-26	30	Reddish	Soft	6-12	18-22	Aug.-Sept.	Jan.-Apr.	

Cotton by trade description	Varieties	Characteristics					Months of			Tracts where grown
		Staple length (32nd inch)	Ginning per-centage	Colour	Feel	Blow-room loss per-centage	Spinning capacity (counts)	Sowing	Harvesting	
X. Southems (Contd.)	Jayadhar	28-29	29-31	Pearly	Coarse	10	30	Aug-Sept.	Feb.-Mar.	Dharwar, Belgaum, Bijapur and Chitaldrug districts of Mysore State; Sangli and Kolhapur districts of Maharashtra State
	Karunganni 2	28-29	31	Creamy white	Soft	7	28-28	Oct.-Nov.	Mar.-Apr.	Coimbatore, Madurai, Ramanathapuram, Tirunelveli and Tiruchirappalli districts of Madras State
	Karunganni 5	28-29	27	Creamy white	Soft	6-7	26-28	Oct.-Nov.	Mar.-Apr.	Raichur and Gulbarga districts of Mysore State
	Kumpta Ordinary	26-28	23-24	Yellow tinted	Soft bodied	14-16	22	August	Mar.-Apr.	Bellary district and <i>kharij</i> cotton grown in Raichur and Gulbarga districts of Mysore State
	Mungari	16-22	33	Creamy white	Slightly rough	6	8-10	June-July	Oct.-Dec.	Bellary district and <i>kharij</i> cotton grown in Raichur and Gulbarga districts of Mysore State; Anantapur, Cuddapah and Kurnool (excluding Kumbum and Markapur <i>tabakas</i>)• districts of Andhra Pradesh
	Westerns (Hagari 1)	26	28	Slightly creamy	Soft bodied	10-12	24	Aug-Sept.	Jan.-May	Bellary district of Mysore State; • Anantapur and Cuddapah districts and Pattikonda, Adoni and Alur <i>tabakas</i> of Kurnool district of Andhra Pradesh
	Westerns (Ordinary)	22-26	25	Creamy	Full bodied	11-13	16	Aug-Sept.	Jan.-May	

APPENDIX—(Contd.)

Cotton by trade description	Varieties	Characteristics					Months of		Tracts where grown	
		Staple length (32nd inch)	Ginning per-centage	Colour	Feel	Blow-room loss per-centage	Spinning capacity (counts)	Sowing		Harvesting
X. Southern (Contd.)	Nandyal 14	28-30	25	Greyish white	Good soft	8	32	June-Oct.	Feb.-Apr.	Kurnool and Mehaboobnagar districts of Andhra Pradesh
	White and Red Northern	26-28	22	Creamy white	Good soft	8	22	June-Aug.	Feb.-Apr.	Kurnool district (excluding Pattikonda, Adoni and Alur talukas) of Andhra Pradesh.
XI. Surti-Vijalpa	Vijalpa	28-32	36-37	Whitish	Soft	4-8	26-30	June-July	Dec.-Mar.	Surat district, Ankleshwar, Jaghadia and Dediapada talukas and part of Nandod taluka lying south of river Narbuda, and Hansot, Valia and Sagbara talukas of Broach district of Gujarat State and Nawapur and Akalkuwa talukas of Dhulia district of Maharashtra State (excluding Akalkuwa and Nawapur talukas), Akola, Amravati, Yeotmal, Buldhana, Wardha and Aurangabad districts of Maharashtra State; (Contd.)
	Suyog	28-30	33-36	Very bright white	Soft silky	7-8	24-28	June-July	Dec.-Mar.	
XII. Virnar	Virnar	26-28	38-39	White	Softs	6-11	20-24	June-July	Sept.-Jan.	

APPENDIX—(Contd.)

Cotton by trade description	Varieties	Characteristics				Months of		Tracts where grown		
		Staple length (32nd inch)	Ginning per-centage	Colour	Feel	Blow-room loss per-centage	Spinning capacity		Sowing	Harvesting
XII. Virnar (Contd.)	Jarila	24-28	33-35	White	Soft	9-13	22-24	June-July	Sept.-Jan.	(Contd.) Indi, Sindgi and Bijapur talukas of Bijapur district of Mysore State; and Nimar, Mandasaur, Dewas, Indore, Khargone, Rajgarh, Shajapur, Jhabua, Ujjain, Ratlam and Dhar districts of Madhya Pradesh
XIII. Sea Island	Andrews	•40	33	White to pearly white	Silky	4-5	60	May-June	Dec.-Jan.	Kozhikode, Palghat and Trichur districts and other coastal parts of Kerala State, and Mangalore district and other coastal parts including the Malnad area of Mysore State